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ABSTRACT

The use of four periods in the school day, as opposed to six, with each period 90 minutes in length is referred to as 4 X 4 block scheduling. In Virginia, as in many states, there is increasing interest in this kind of scheduling to deliver education that meets the instructional needs of students. In 1995-96, Western Branch High School (WBHS) of the Chesapeake Public School Division (Virginia) organized the school day based on the 4 X 4 model. The school year is still divided into two semesters, but courses require only 90 instructional days, and students may take eight classes each year toward graduation. The literature on 4 X 4 block scheduling does not provide conclusive evidence for or against it because it is a relatively new approach. The evaluation of the block scheduling at WBHS studied positive and negative impacts on students, teachers, and the school administration. Data were collected to compare 1995-96 with 1994-95. Data included: a teacher survey, answered by 69% of the faculty, interviews with department heads, a survey completed by 34% of 300 students sampled, interviews with 30 students, and surveys completed by 40% of 300 parents sampled. Findings suggest concerns about the scheduling of advanced placement courses and examinations as well as other scheduling aspects. Additional staff development, the possibility of a longer school day, a review of the credits required for graduation, and the exploration of ways to help transfer students were among the recommendations for continuing the block scheduling. It is suggested that other high schools in the district try block scheduling, using either 4 X 4 or an alternate day block, as an option if students, parents, and faculty understand and support the concept. Four appendixes contain the interview format for department heads, a chart of advanced placement score increases and declines, a summary of student interviews, and a list of excess textbooks due to block scheduling. (Contains 14 charts.) (SLD)

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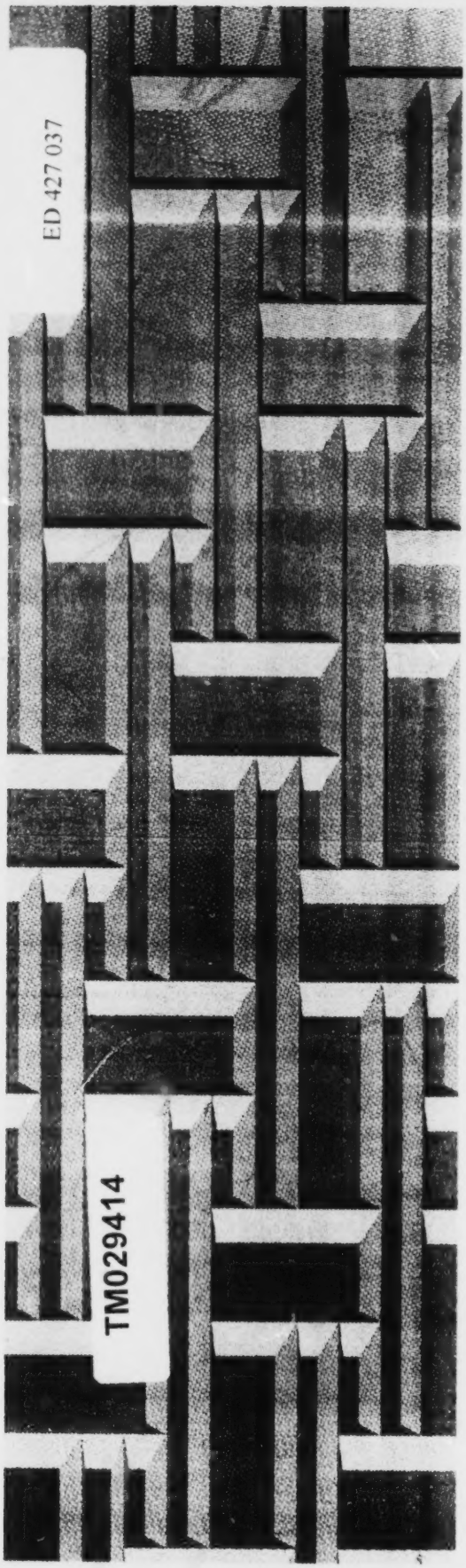

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CHESAPEAKE PUBLIC SCHOOLS

# 4X4 BLOCK SCHEDULE

# EVALUATION

OFFICE OF PROGRAM EVALUATION

OCTOBER 1996

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## PROGRAM EVALUATION TEAM

**Dr. Davida W. Mutter, Director of Staff Development and Program Evaluation**

**Mr. Fred Cabler, Assistant Superintendent for Budget and Finance**

**Dr. Jim Roberts, Director of Budget**

**Dr. Elaine Chase, Assistant in Program Evaluation**

**Mr. Arthur V. Brandriff, Jr., Principal, Western Branch High School, ad hoc member**

**Mrs. Elizabeth Foster, KPMG Peat Marwick, external advisor**

## 4 X 4 BLOCK SCHEDULE EVALUATION
## HOW TO READ THE EVALUATION REPORT

This report documents the results of the evaluation of the 4 X 4 Block Schedule at Western Branch High School. The **Table of Contents** lists each section of the evaluation project and the related charts and appendices. The report is divided into the following sections:

- **Executive Summary of the Evaluation**
- **Overall Findings, Conclusions, and Recommendations**
- **Evaluation Proposal**
- **Review of the Literature**
- **Meeting with the Faculty Evaluation Committee**
- **Information from the WBHS Faculty Evaluation Committee**
- **Survey of Teachers**
- **Interviews with Department Heads**
- **Survey of Students**
- **Interviews with Students**
- **Survey of Parents**
- **Survey of Secondary Guidance Directors**
- **Survey of Administrators**
- **Information from Central Office Directors**
- **Appendices**

An **Executive Summary of the Evaluation** is provided at the front of the report. The summary is an overview of the evaluation.

The **Overall Findings, Conclusions, and Recommendations** section includes the research questions, performance criteria for success, and final findings, conclusions, and recommendations of the evaluation. To obtain more detailed information regarding the findings, conclusions, and recommendations related to each data collection procedure, the reader should refer to the individual sections of the evaluation. Charts pertaining to each section appear immediately after the pages which refer to them.

The **Evaluation Proposal** defines the scope of the evaluation as agreed upon by team members and the administrator of the project and contains the signatures of the program evaluation team leader and the administrator of the project.

The **Review of the Literature** provides information related to the research which guided the data collection activities of the evaluation.

The **Meeting with the Faculty Evaluation Committee** section provides the results of the meeting held to discuss the responsibilities of the committee which collected school-related data and the Program Evaluation Team.

The **Information from the WBHS Faculty Evaluation Committee** section contains the data collected by the Faculty Evaluation Committee from a variety of school records and the related findings, conclusions, and recommendations.

The **Survey of Teachers** section provides the results of the formal survey of all faculty members and the related findings, conclusions, and recommendations.

The **Interviews with Department Heads** section provides the results of the interviews with WBHS department heads and the related findings, conclusions, and recommendations.

The **Survey of Students** section provides the results of the formal survey of a random sample of WBHS students and the related findings, conclusions, and recommendations.

The **Interviews with Students** section provides the results of structured interviews with a random sample of WBHS students and the related findings, conclusions, and recommendations.

The **Survey of Parents** section provides the results of the formal survey of a random sample of WBHS parents and the related findings, conclusions, and recommendations.

The **Survey of Secondary Guidance Directors** section presents the results of the formal survey of all directors of guidance on the secondary level in the school division and the related findings, conclusions, and recommendations.

The **Survey of Administrators** section provides the results of the formal survey of all WBHS administrators and the related findings, conclusions, and recommendations.

The **Information from Central Office Directors** section presents the data collected regarding costs associated with implementation of the schedule and the related findings, conclusions, and recommendations.

The **Appendices** section includes the background documents related to the study.

It is hoped that the format of this report will assist the reader in understanding the evaluation of the 4 X 4 Block Schedule.



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## TABLE OF CONTENTS


EXECUTIVE SUMMARY OF THE EVALUATION ..... 2

OVERALL FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS ..... 14

EVALUATION PROPOSAL ..... 22

SUPPORTING DOCUMENTATION TO THE STUDY:

- Review of the Literature ..... 28
- Meeting with the Faculty Evaluation Committee ..... 35
- Information from the WBHS Faculty Evaluation Committee ..... 38
- Survey of Teachers ..... 49
- Interviews with Department Heads ..... 61
- Survey of Students ..... 66
- Interviews with Students. ..... 74
- Survey of Parents ..... 81
- Survey of Secondary Guidance Directors ..... 89
- Survey of Administrators ..... 94
- Information from Central Office Directors ..... 99

APPENDICES ..... 103

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# EXECUTIVE SUMMARY OF THE EVALUATION

# EXECUTIVE SUMMARY OF THE EVALUATION

## 4 X 4 BLOCK SCHEDULE EVALUATION
## EXECUTIVE SUMMARY

Schools in many states, including Virginia, are rethinking the organization of the school day at the high school level. This change comes as one response to the need to provide a curriculum with a heavier academic emphasis, an increase in graduation requirements, and the integration of technology. Proponents argue that with the manipulation of time periods in the school day it is possible to deliver an educational product that more closely meets the changing instructional needs of both students and teachers (NASSP, 1996).

Various forms of block scheduling have received considerable attention in the past few years. For example, in 1992 ninety-six percent of the senior high schools in the nation and ninety-eight percent of Virginia's senior high schools were scheduled using a traditional, six-period day (Kosanovic, 1992). By 1995, however, over forty percent of the high schools nationwide and forty-six percent of the schools in Virginia were using some form of block scheduling (Hackman, 1995, and O'Neill, 1995).

**What is 4 X 4 block scheduling?**

Generally, 4 X 4 block scheduling refers to the use of four periods in the school day (as opposed to six) with each period 90 minutes in length. Students take four classes each semester for a total of eight classes for the school year. At the end of each semester, students earn four credits toward graduation for a possible total of eight for the year. In this scheduling arrangement, it is possible to earn thirty-two credits in four years without attending summer school. In addition to the possibility of earning more credits, the goals of block scheduling are described in educational literature as follows:

- To provide longer class periods so that teachers have more time to use a variety of techniques which encourage student involvement (i.e., group projects)
- To allow students more time to learn without lowering standards and to enable students to repeat failed courses in time to graduate with their peers
- To reduce the number of class changes and other movements during the school day
- To reduce the inefficiency which occurs in the daily, single-period schedule
- To reduce the number of students per teacher each semester
- To reduce the number of teacher preparations
- To reduce the number of classes per student each semester
- To reduce the amount of instructional time lost in laboratory classes because of setup and cleanup

(Canady/Rettig, 1995)

**How does block scheduling work at Western Branch High School?**

In 1995-96, Western Branch High School organized the school day based on the 4 X 4 block scheduling plan. This change was a full departure from the traditional, six-period schedule in which the school day was divided into six instructional periods of fifty-one minutes each. With traditional scheduling, the school year was divided into two semesters. Courses required 180 days (two semesters) for one unit of graduation credit. Most students took a maximum of six courses per year; however, an early morning class was offered each day, giving students the opportunity to earn seven credits a year. The 1992-93 school year was the last year of the traditional schedule at Western Branch High School.

In 1993-94 and 1994-95, as a transition stage, some classes were scheduled based on a modification of the alternating block schedule or "A-B" schedule. When the A-B plan is fully implemented, teachers teach half of their classes on one day and the other half the next day (at WBHS some classes were offered in blocks every other day; other classes met everyday). Blocked classes meet 90 minutes as in the 4 X 4 schedule; however, each class meets **all year** for one academic credit. With the exception of longer class blocks, the "A-B" plan retains many features of the traditional schedule (e.g., there is no reduction in the number of classes for students and teachers).

With the 4 X 4 block schedule, the school day at WBHS is divided into four instructional blocks (periods) of 90 minutes each. The school year is still divided into two semesters; however, courses require only 90 instructional days (one semester) for one unit of graduation credit. In the fall semester, students enroll in four classes which meet every day. Students enroll in four new courses in the spring semester. Students, therefore, may take eight classes a year with each applying toward graduation.

**What does educational literature say about 4 X 4 block scheduling?**

Educators are not in complete agreement on the positive and negative features of 4 X 4 block scheduling because this simple, yet powerful, concept is relatively new. Additionally, each senior high school is unique, and this uniqueness affects the success of block scheduling in any particular school. Enough evidence is available, however, so that leading researchers generally agree on the advantages and disadvantages of the typical 4 X 4 block schedule.

Advantages:

- Students take only four classes per semester and earn eight credits per year.
- Students can graduate in three years (if graduation requirements are not increased).
- Students can repeat failed classes without attending summer school.
- Students and teachers prefer 4 X 4 block scheduling after two or more years.
- Teachers are responsible for only 90 students per semester (as opposed to 150) and yet teach up to 180 students per year.

- Teachers teach three periods per day.
- Teachers lecture less and more actively engage students in the learning process.
- Many schools report an increase in student attendance and higher grades.
- Many schools report a decrease in discipline problems.
- Some schools arrange with local colleges for students to take classes for college credit.
- Fewer textbooks are required.

Disadvantages:

- Curriculum adjustments must be made to accommodate the pacing of instruction.
- Teachers require additional training in effectively teaching in longer blocks of time.
- AP classes and band are offered in one semester.
- Graduation requirements (number of credits) must be reevaluated.
- Student absences are a problem.
- Class sizes increase or staff must be added.
- More course offerings may be required as students take more classes per year.

(Canady/Rettig, 1995; NASSP Reports, 1993, 1995, 1996; Shortt & Thayer, 1996; NC Department of Instruction Evaluation Report, 1994; Lafayette High School Evaluation Report, 1995; VEA, 1994)

**How was 4 X 4 block scheduling evaluated at WBHS?**

The Chesapeake School Board designated 4 X 4 block scheduling at WBHS to be evaluated during the first year of implementation (1995-96). The purpose of the evaluation was to examine the positive and negative impact of the scheduling change on students, teachers, and the administration of the school as a whole. An evaluation proposal was prepared and agreed upon by the evaluation team (including the principal and assistant principal for instruction at WBHS) prior to the study. The nine components of the evaluation included the following:

- Collection of school data comparing 1995-96 with 1994-95 school year (e.g., student absences, failure rate)
- Collection of data from central office administrators (e.g., textbook savings and staffing requirements)
- Survey of all WBHS teachers (return rate of 69%)
- Interviews with all department heads
- Random survey of 300 students (return rate of 34%)
- Interviews with 30 students randomly selected from a cross section of classes
- Random survey of 300 parents (return rate of 40%)
- Survey of all secondary guidance directors (return rate of 100%)
- Survey of WBHS administrators (return rate of 100%)

Much of the evaluation focused on what surveyed and interviewed groups said about the 4 x 4 experience during the first year of implementation.

**What are the results of the evaluation?**

The scope of the data collection and analysis occurred over the entire 1995-96 school year yielding extensive information on the impact of the 4 X 4 block schedule at WBHS. The purpose of this summary is to highlight the most salient points that emerged from the data.

In general, the positive and negative findings from the evaluation closely align with what is predicted from the educational literature based on the documented experiences of other schools. In some areas, opinions clearly agree; in other areas, opinions and perceptions differ. The sections which follow highlight major findings of the evaluation (see also Chart A, page 6; Chart B, page 7; and Chart C, page 9).

What is clearly positive about the 4 X 4 schedule at WBHS?

- The majority of all groups prefer the 4 X 4 block schedule over the six-period schedule (see Chart A, page 6).
- Regular and special courses (e.g., cooperative work program) as well as extracurricular activities were handled satisfactorily (see Chart A, page 6).
- Eighty percent of freshman, sophomores, and juniors earned more credits.
- Students who failed a class were able to retake it the following semester (34%).
- The failure rate decreased in 60% of departments.
- Grades improved (percentage of A's and B's).
- Disciplinary referrals decreased (1%).
- Student attendance improved (1.4%).
- Teachers had fewer students each semester but taught more students for the year.

What is not positive about the 4 X 4 block schedule at WBHS?

- AP classes were taught in one semester blocks (see Chart B, page 7).
- Music classes were taught in one semester blocks (see Chart B, page 7).
- Students found it difficult to recover from absences (see Chart B, page 7).
- The school day began and ended later than parents, students, and teachers would prefer (see Chart B, page 7).
- Lunch periods (25 min.) and time between classes (5 min.) were too short.
- Some classes were larger than the previous year.

CHART A
4 X 4 BLOCK SCHEDULE EVALUATION
AREAS THAT GROUPS AGREE ARE SATISFACTORY

| DATA SOURCE | I PREFER THE 4 X 4 BLOCK SCHEDULE. | EXTRA-CURRICULAR ACTIVITIES WERE OK. | REGULAR COURSES WERE OK. | ELECTIVE COURSES WERE OK. | SPECIAL EDUCATION PROGRAM WAS OK. | COOPERATIVE WORK PROGRAM WAS OK. |
|---|---|---|---|---|---|---|
| Student Survey | 64% Yes | 67% Yes | 76% Yes | 73% Yes | 71% Yes | 100% Yes |
| Student Interviews | 8 Courses - Yes 90 Min. - No | Yes | --- | No | --- | Yes |
| Parent Survey | 63% Yes | 72% Yes | 76% Yes | 75% Yes | 55% Yes | 86% Yes |
| Teacher Survey | 82% Yes | 67% Yes | 88% Yes | 76% Yes | 83% Yes | 82% Yes |
| Department Head Interviews | Yes | No | Yes | Yes | --- | --- |
| Admininistrative Survey | 100% Yes | 100% Yes | 100% Yes | 60% Yes | 100% Yes | 100% Yes |

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**CHART B**
**4 X 4 BLOCK SCHEDULE EVALUATION**
**AREAS THAT GROUPS AGREE NEED IMPROVEMENT**

| DATA SOURCE | THE ADVANCED PLACEMENT PROGRAM WAS OK. | THE MUSIC PROGRAM WAS OK. | ARRANGEMENTS FOR STUDENTS WITH ABSENCES WERE OK. | AN EARLIER SCHOOL DAY IS NEEDED. |
|---|---|---|---|---|
| Student Survey | 53%<br>No | 56%<br>No | 71%<br>No | --- |
| Student Interviews | No | No | No | Yes |
| Parent Survey | 48%<br>No | 50%<br>No | 68%<br>No | Yes |
| Teacher Survey | 54%<br>No | 68%<br>No | 53%<br>No | 51% Yes-Longer Day |
| Department Head Interviews | No | No | ---- | Yes |
| Administrative Survey | 0%<br>No | 80%<br>No | 80%<br>No | 40% Yes-Longer Day |

In what areas do opinions and perceptions differ among groups (see Chart C, page 9)?

- Variety of learning activities used: Teachers and administrators say "yes"; many students disagree.
- More active participation by students: Teachers and administrators say "yes"; many students disagree.
- More individual attention for students: Teachers and administrators say "yes"; many students disagree.
- Transfer students: Students and administrators say not a serious problem; parents, teachers, and guidance directors are divided.

**What are the major recommendations for the future of 4 X 4 block scheduling at WBHS?**

The recommendations included in this summary address those areas of major concern that if solved will help ensure greater success at WBHS for students and teachers. All of the recommendations address problem areas that are reported in the literature as typical of 4 X 4 block schedules in the implementation stage.

1. Schedule AP classes and music (performance classes) in one of several ways so that instruction takes place over a time period greater than one semester (see alternative schedules, pages 11 and 12).

2. Explore additional ways to better assist students who are absent to reduce teacher and student frustration.
   a. Develop schoolwide guidelines for all to follow.
   b. Ensure that students use the extended day service of 90 minutes of help every Wednesday to catch up when absent.
   c. Offer sessions before school on a rotational basis.

3. Assess the feasibility of an earlier and longer school day (410 minutes at WBHS; 420-430 minutes recommended in the literature):
   a. To reduce the amount of time lost by students who participate in extracurricular activities
   b. To add five minutes to lunch periods and passing time between classes

4. Plan for the use of more advanced technology in scheduling, and use the data for staffing to better balance the number of students among classes.

5. Plan for additional staff development opportunities which assist teachers in balancing explanation and application in lessons and engaging all levels of students in the longer class periods with a variety of learning activities. Use faculty seminar groups that make periodic use of planning time to collaborate and support effective teaching practices.

**CHART C**
**4 X 4 BLOCK SCHEDULE EVALUATION**
**AREAS IN WHICH GROUP OPINIONS DIFFERED***

| DATA SOURCE | A VARIETY OF LEARNING ACTIVITIES WERE INTRODUCED BY TEACHERS. | STUDENTS PARTICIPATED MORE ACTIVELY IN THE LEARNING PROCESS. | STUDENTS WERE PROVIDED MORE INDIVIDUAL ATTENTION. | STUDENT TRANSFERS WERE HANDLED WITHOUT DIFICULTY. |
|---|---|---|---|---|
| Student Survey | 56% Yes | 53% Yes | 46% Yes | 69% Yes |
| Student Interviews | No | No | Yes | Yes |
| Parent Survey | Yes/No | Yes/No | Yes/No | 56% Yes |
| Teacher Survey | 84% Yes | 64% Yes | 77% Yes | 45% Yes |
| Department Head Interviews | Yes | Yes | Yes | Yes |
| Admininistrative Survey | 100% Yes | 100% Yes | --- | 80% Yes |
| Guidance Directors Survey | -- | -- | -- | 53% of transfers easy to accommodate; 47% difficult to accommodate |

*Two or more groups differed.

6. Encourage teachers to use time for practicing what has been learned in the classroom to give individual attention to students as needed and to avoid extended "study hall" periods.

7. Explore additional ways to assist transfer students:
   a. Provide opportunities for guidance directors to share information on scheduling transfer students to and from the 4 X 4 block schedule.
   b. Coordinate the services of the instructional lab and extended day schedule on Wednesdays to assist further students who transfer.
   c. Reassess the feasibility of offering a few required courses on a semester basis to accommodate students who were not on a 4 x 4 block schedule.

8. Review the number of credits required for graduation. The educational literature recommends 28 credits in a school using the 4 x 4 block schedule. Currently 21 credits (General Studies Diploma) and 23 credits (Advanced Studies Diploma) are required.

9. In 1996-97, evaluate the following performance criteria as a follow-up to the evaluation of the first year:
   - Percentage of A-B Honor Roll Students
   - Grade Point Average (GPA)
   - SAT Scores
   - Advanced Placement (AP) Participation and Scores
   - Attendance Rate
   - Graduation Rate
   - Dropout Rate
   - Standardized Test Scores
   - Disciplinary Referrals

**What is recommended for other high schools in Chesapeake?**

On the basis of all data collected, it is recommended that other senior high schools explore block scheduling (e.g., 4 X 4 and alternating day) as an option if the faculty, students, and the community understand the concept and fully support the change. Divisionwide guidelines for the implementation of block scheduling should be developed based on the results of the evaluation. Based on the staffing experience at Western Branch High School, it is estimated that a minimum of four additional teachers will be required at each senior high school undertaking 4 X 4 block scheduling for a total cost of $163,280 (includes salary and fringe benefits).

For those schools seriously considering block scheduling as an option, the following is recommended:

1. Follow the divisionwide guidelines for implementation of block scheduling, and use the Citywide Block Scheduling Committee to advise senior high schools on the transition to block scheduling.

2. Provide intensive staff development opportunities (a minimum of five days of workshops in cooperative learning, Socratic seminars, and other techniques that work well in long blocks).

## ALTERNATIVE SCHEDULES FOR THE MUSIC AND ADVANCED PLACEMENT PROGRAMS

### MUSIC ALTERNATIVE #1

<table>
<tr><th>Block</th><th colspan="2">Semester 1</th><th>Semester 2</th></tr>
<tr><td rowspan="2">1</td><td rowspan="2">Marching Band (9 Weeks) ½ Credit</td><td colspan="2">Concert Band (27 Weeks) 1½ Credits</td></tr>
<tr><td colspan="2">Honors Government, AP Government, or Keyboarding (27 Weeks) 1 1/2 Credits</td></tr>
<tr><td>2</td><td colspan="2"></td><td></td></tr>
<tr><td>3</td><td colspan="2"></td><td></td></tr>
<tr><td>4</td><td colspan="2"></td><td></td></tr>
</table>

### MUSIC ALTERNATIVE #2

| Block | Semester 1 | Semester 2 |
|---|---|---|
| 1 | Marching Band (Mandatory) 1 Credit | Concert Band (Optional) 1 Credit |
| 2 | | |
| 3 | | |
| 4 | | |

### MUSIC AND ADVANCED PLACEMENT ALTERNATIVE #3

| Block | Semester 1 | Semester 2 |
|---|---|---|
| 1 | Music Course (45 minutes) 1 Credit | |
| | Advanced Placement Course (45 minutes) 1 Credit | |
| 2 | | |
| 3 | | |
| 4 | | |

**ADVANCED PLACEMENT ALTERNATIVE #1**
**(Courses with Lab Requirements)**

| Block | Semester 1 | Semester 2 |
|---|---|---|
| 1 | *Honors Chemistry<br>1 Credit | AP Chemistry<br>1 Credit |
| 2 | | |
| 3 | | |
| 4 | | |

*Students have the option of taking AP Chemistry 2nd semester.

**ADVANCED PLACEMENT ALTERNATIVE #2**
**(History, Government, & English)**

| Block | Semester 1 | Semester 2 | |
|---|---|---|---|
| 1 | Advanced Placement English<br>(27 Weeks) 1½ Credits | | Novels<br>(9 Weeks)<br>½ Credit |
| 2 | | | |
| 3 | | | |
| 4 | | | |

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# OVERALL FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

## OVERALL FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This section includes the research questions, performance criteria for success, and overall findings, conclusions, and recommendations of the evaluation.

## 4 X 4 BLOCK SCHEDULE EVALUATION
## OVERALL FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

**RESEARCH QUESTIONS** (See Proposal, pages 23 and 24):
What was the impact of the new schedule on students?
What was the impact of the new schedule on teachers?
What was the impact of the new schedule on the administration?

**PERFORMANCE CRITERIA FOR SUCCESS**: See Proposal, pages 24 and 25.

**OVERALL FINDINGS AND CONCLUSIONS:**
This section presents the findings from the following interviews and surveys: Meeting with the Faculty Evaluation Committee, Survey of Teachers, Interviews with Department Heads, Survey of Students, Interviews with Students, Survey of Parents, Survey of Secondary Guidance Directors, and Survey of Administrators. Findings from school data collected by the WBHS Faculty Evaluation Committee and the Information from Central Office Directors are included with the conclusions.

I. **FINDINGS AND CONCLUSIONS BASED ON SCHOOL DATA COLLECTED BY THE WBHS FACULTY EVALUATION COMMITTEE** (see page 38) **AND INFORMATION FROM CENTRAL OFFICE DIRECTORS** (see page 99)**:**

- **The new schedule offered students the opportunity to earn more credits.** Eighty percent of freshmen, sophomores, and juniors earned more than six credits, satisfying the performance criterion for success for the evaluation. In addition, students were able to take combinations of courses not possible in the six-period schedule.

- **Over thirty-four percent (34.25%) of students retook a failed course the second semester, satisfying the performance criterion for success for the evaluation**.

- **The failure rate decreased in 60% of departments, satisfying the performance criterion for success for the evaluation.**

- **Grade distributions of departments improved in the new schedule**. The majority of departments experienced increases in percentage of A's and B's and decreases in percentage of C's and D's over the previous year. (Comments of parents and students in interviews and surveys also indicated that grades of many students improved in the new schedule.)

- **Eighty-three percent of teachers had only one or two preparations in both terms, satisfying the performance criterion for success for the evaluation**.

- **Teachers averaged thirty-nine more minutes of planning time in the new**

**schedule, satisfying the performance criterion for success in the evaluation.**

- **The average number of students per teacher per semester was reduced, satisfying the performance criterion for success for the evaluation.**
- **Eighty-seven percent of teachers participated in voluntary staff development activities, satisfying the performance criterion for success for the evaluation.**
- **Twenty-two fewer minutes were required for changing classes in the new schedule, satisfying the performance criterion for success for the evaluation.**
- **Disciplinary referrals related to behavior problems during the regular school day decreased by one percent from the previous year, satisfying the performance criterion for success for the evaluation.**
- **No additional classrooms were required because of the new schedule, satisfying the performance criterion for success for the evaluation** (the four additional classrooms used were due to a larger student population).
- **Seven new courses were added in the new schedule to allow students to take more credits.**
- **Additional costs for staff ($40,820) and instructional supplies ($3,602) were offset in the first year by savings in textbook costs ($101,371).**
- **Efficiency savings resulted** from teachers teaching six classes per year rather than five (cost per class was $1,822 less in the new schedule--see Chart 10, page 100).
- **No additional transportation costs were incurred in the new schedule.**
- **One computer lab ($52,242) was added to the business department** in the 1996-97 school year to accommodate increased enrollments in elective courses.
- In the 1996-97 school year, freshmen, sophomores, and juniors are required to take eight courses. An additional 2.4 staff positions are budgeted for 1996-97.
- **A minimum of four staff positions at each high school will be required to implement the 4 X 4 block schedule divisionwide.**

II. **CONCLUSIONS RELATED TO AREAS IN WHICH THE MAJORITY OF RESPONDENTS INDICATED SATISFACTION OR OPINIONS DIFFERED** (see Charts A and B of the Executive Summary, pages 6 and 7):

On the majority of topics, higher percentages of teachers and administrators expressed satisfaction as compared to the responses of parents and students.

- **All groups expressed a preference for the 4 X 4 schedule over the six-period schedule**. A number of students complained of the long class periods; however, the majority of students surveyed and interviewed like the organizational aspects of the 4 X 4 schedule (e.g., taking 4 classes per term and 8 classes per year).

- **Students surveyed were divided as to whether teachers introduced a variety of learning activities in the new schedule.** Many of the students interviewed, however, indicated that teachers did not introduce a variety of learning activities, complaining of boredom and teachers who lectured for most of the ninety-minute periods. Teachers surveyed, department heads interviewed, and administrators surveyed indicated a variety of activities were used.

- **Students and parents surveyed were each divided as to whether students were more active participants in learning in the new schedule**. Students interviewed said students were not more actively engaged in the learning process as many teachers continued to lecture and failed to adapt their lesson plans to the longer class periods. The majority of teachers, department heads, and administrators, however, said students were more active learners.

- **Students surveyed were divided as to whether they received more individual attention in the new schedule**. Students interviewed, however, said they received more individual attention. All other groups interviewed or surveyed believe that students received more individual attention.

- **The majority of students, parents, and department heads and a high percentage of administrators indicated that transfers were accommodated in the new schedule.** Fewer than half of the teachers surveyed indicated students were adequately accommodated. Information from guidance directors indicated that accommodating transfer students in any schedule is difficult and is not significantly different in the 4 X 4 schedule.

- **The majority of respondents in all groups said that accommodating students in extracurricular activities was not a problem**. Comments from some students, parents, and teachers, however, suggested that clubs experienced reductions in the number of participants because membership was not always yearlong. In addition, students who participated in sports missed more instructional time this year.

- **High percentages of respondents in all groups indicated students in regular courses were accommodated**. Some parents, students, and teachers who commented, however, expressed concern that some class sizes had increased. Also,

it appears from the comments of parents and students that the workload of some students increased in the new schedule.

- **High percentages of all groups indicated that students in elective courses were accommodated.** Concerns expressed by those commenting centered around scheduling conflicts which diminished the opportunity for students to take more electives (especially their first choices).

- **The small sample of parents of special education students who responded were divided about the new schedule.** All other groups agreed that special education students were accommodated.

- **All groups agreed that students in the cooperative work program were accommodated.**

III. **CONCLUSIONS RELATED TO AREAS IN WHICH THE MAJORITY OF RESPONDENTS INDICATED A NEED FOR IMPROVEMENT** (see Chart C of the Executive Summary, page 9):

- **Parents, students, and teachers indicated a need for improvement in accommodations for students in the Advanced Placement (AP) program.** Administrators were divided as to whether students were accommodated. Concerns of all groups focused on the fact that students who took AP classes the first term had an intervening term before AP exams in May and that students who took classes the second term had less instructional time because of the May testing schedule (see Appendix 2, page 104, for 1996 and 1997 AP exam scores).

- **All groups indicated a need for improvement in scheduling students in the music program.** The band and chorus experienced reduced enrollments (1) when students experienced scheduling conflicts between music courses and courses required for college and (2) when students were unwilling to commit a quarter of their credits to the music program.

- **All groups agreed that accommodating students with absences is a problem in the new schedule.** Students miss twice as much time when they are absent on a given day in the 4 X 4 schedule as compared to a traditional schedule.

- **All groups would prefer an earlier school day.**
Ending the day seventeen minutes later in the new schedule resulted in less time in the afternoon for extracurricular activities. Students who participated in sports missed more time when they left early an already compressed course. Students, parents, and teachers also complained that fewer breaks and an increased student population effectively shortened breaks and the lunch period. An earlier, longer school day could address these concerns.

**OVERALL RECOMMENDATIONS:**

**Based on information obtained in the evaluation, the team recommends that WBHS continue the 4 X 4 block schedule with the following suggested changes.**

1. **Plan for the use of more advanced technology in scheduling,** and use the data for staffing to achieve a better balance in the number of students among classes.

2. **To the extent possible, schedule adequate sections of academic courses and "popular" elective courses**
   - to allow students to retake courses the semester following a failure
   - to balance teacher/student ratios within staffing guidelines among classes
   - to ensure that additional electives selected are consistent with the educational goals of students rather than a mere accumulation of credits

3. **Provide additional staff development activities** which assist teachers in implementing three-part lessons which balance explanation, application, and synthesis in order to engage all levels of students in the longer class periods. Establish faculty seminar groups that use thirty minutes of the planning bell periodically in order to collaborate on implementation/teaching strategies.

4. **Expand the individual advisement component of the counseling program to assist students**
   - in understanding the opportunities available in the new schedule (i.e., taking combinations of courses not possible in the six-period schedule)
   - in balancing student workloads to reduce stress in the faster pace by selecting classes with low- and high-homework and related projects (code classes as either high-or low homework in the student scheduling system and run preliminary schedules in February which can be adjusted in May if necessary)
   - in balancing curricular and extracurricular activities
   - in effectively using the extended day for short-term absences
   - in scheduling classes to avoid conflicts between the music program and AP program and other required or preferred courses

5. **Provide counseling on the middle school level** to assist students in the transition to the 4 X 4 schedule.

6. **Assess the feasibility of an earlier and longer school day** (1) to reduce the amount of instructional time lost by students who participate in extracurricular activities, and (b) to add five minutes to lunch periods and the morning break (410 minutes at WBHS; 420 - 430 minutes recommended in the literature).

7. **Offer alternative scheduling options for the AP program** (e.g., offer AP courses with lab requirements as yearlong, two-credit courses; see other alternatives, pages 58 and 59).

8. **Offer alternative scheduling options for the music program** (e.g., offer all students the opportunity to take six block courses and two yearlong courses, one of which could be music; see other alternatives, page 58).

9. **Coordinate the services of the instructional lab and the extended day program**, which offers students ninety minutes of instruction every Wednesday to make up absences, to assist transfer students and students with extended absences who are not eligible for homebound instruction.

10. **Increase parental awareness of the opportunities available in the 4 X 4 schedule** to enable parents to assist students in scheduling appropriate courses (i.e., disseminate information through the parent newsletter, workshops, and other channels of communication in the community).

11. **Explore ways to better accommodate students who are absent for prolonged periods of time because of illness.**

12. **Explore ways to expand the services of the instructional lab to better accommodate students who transfer** (i.e., use the extended day schedule, which offers students ninety minutes of instruction after school every Wednesday to make up absences, to serve transfer students as well).

13. **Convene parents of student groups where a substantial number of parents have expressed concern** (e.g., music students) to explain workable scheduling options.

14. **Provide the opportunities for guidance directors to share information** on scheduling transfer students to and from the 4 X 4 block schedule.

15. **Reassess the feasibility of offering a few required courses on a semester basis to accommodate students who transfer** from other schools not on block scheduling.

16. **Explore opportunities for accommodating students who cannot participate in clubs which meet after school** (e.g., create 80-minute classes periodically to allow for a 40-minute activity period).

17. **Review the number of credits required for graduation** (currently 21 credits for a General Studies Diploma and 23 credits for an Advanced Studies Diploma). The educational literature recommends 28 credits in a school using the 4 X 4 block schedule.

18. **In the 1996-97 school year, evaluate the following performance criteria as a follow-up to this evaluation:**

- **Percentage of A-B Honor Roll Students**
- **Grade Point Average (GPA)**
- **SAT Scores**
- **Advanced Placement (AP) Participation and Scores**
- **Attendance Rate**
- **Graduation Rate**
- **Dropout Rates**
- **Standardized Test Scores**
- **Disciplinary Referrals**

CHESAPEAKE
PUBLIC
SCHOOLS

# EVALUATION PROPOSAL

## PROGRAM EVALUATION PROPOSAL

The Proposal defines the scope of the evaluation as agreed upon by team members and the administrator of the project.

**PROGRAM EVALUATION PROPOSAL**
**CHESAPEAKE PUBLIC SCHOOLS**

**PROJECT:** 4 X 4 Block Schedule

**ADMINISTRATOR:** Art Brandriff, Principal, Western Branch High School

**PROJECT PROFILE**

**DESCRIPTION:** In the 1995-96 school year, Western Branch High School replaced their traditional schedule with the 4 X 4 block schedule. The **traditional schedule** divided the school day into six instructional periods of 51 minutes each. The school year was divided into two semesters. Courses required 180 instructional days (two semesters) for one unit of graduation credit. Most students took a maximum of six courses per year; however, an early morning class was offered each day, giving students the opportunity to take seven courses a year.

The **4 X 4 block schedule** divides the school day into four instructional blocks (periods) of 90 minutes each. The school year is still divided into two semesters; however, courses require only 90 instructional days (one semester) for one unit of graduation credit. In the fall semester, students may enroll in four courses which meet daily for one semester and receive credit for each course completed. Students may enroll in four new courses for the spring semester. Students take a maximum of eight courses per year.

**GROUP SERVED:** Students, teachers, and administrators of Western Branch High School

In the 1995-96 school year, all freshmen and sophomores were required to take eight courses (4 X 4). To phase in the program, upperclassmen took varying numbers of courses (e.g., 4 X 3, 3 X 3, 3 X 2).

**GOALS AND OBJECTIVES OF THE 4 X 4 BLOCK SCHEDULE:**

1. **To offer a schedule that provides students with the opportunity to**
   - take two additional classes per year
   - make up a failed class within the regular school term
   - focus academic effort as a result of managing fewer courses each term
   - participate in a variety of learning activities as a result of longer class periods
   - experience a more personalized classroom environment
2. **To offer a schedule that provides teachers with the opportunity to**
   - focus teaching effort by preparing for fewer classes each semester
   - increase planning time during the day
   - reduce the number of students taught each semester
   - extend and vary learning activities on a daily basis (e.g., laboratory experiences)
3. **To offer a schedule that can be administered**
   - with a reduction in student discipline problems due to fewer class changes
   - with a reduction in attendance and retention problems
   - with the use of current resources in the areas of staffing, classroom space, transportation services, teaching materials, and staff training
   - without disruption to extracurricular programs
   - without disruption to regular or special instructional programs

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**PURPOSE OF THE EVALUATION:** To evaluate only those aspects of 4 X 4 block scheduling that are appropriate for the first year of a program (the evaluation does not emphasize test scores) to determine if the goals and objectives of the program were achieved. Objectives of the research will be to collect data (1) to determine the impact of the 4 X 4 Block Scheduling Program on the groups it is designed to serve, and (2) to determine what changes must occur in the allocation of time, personnel, and resources in order to implement fully 4 X 4 block scheduling.

**EVALUATION METHODOLOGY**

**RESEARCH QUESTIONS:**

| OPPORTUNITIES FOR STUDENTS | DATA SOURCE |
|---|---|
| 1. What percentage of students took two additional classes during the year? | 1. School records |
| 2. What percentage of students took combinations of courses that were not possible in the six-period schedule? | 2. School records |
| 3. What percentage of students made up failed classes within the regular school term? | 3. Student schedules |
| 4. What was the student failure rate by department? | 4. School records |
| 5. What was the grade distribution by department? | 5. School records |
| 6. What percentage of students and teachers surveyed indicated students actively participated in learning activities more frequently? Did administrators observe students more actively participating in learning activities more frequently? | 6. Student survey<br>Teacher survey<br>Administrative survey |
| 7. What percentage of students and teachers surveyed indicated the teacher was able to provide more individual attention? Did administrators observe students receiving more individual attention? | 7. Student survey<br>Teacher survey<br>Administrative survey |
| 8. What percentage of students and parents surveyed indicated they prefer 4 X 4 block scheduling to the six-period day? | 8. Student survey<br>Parent survey |

| OPPORTUNITIES FOR TEACHERS | DATA SOURCE |
|---|---|
| 9. What was the average number of teacher preparations each semester? | 9. Master schedule |
| 10. What was the average amount of planning time for teachers during the day? | 10. Master schedule |
| 11. What was the average number of students per teacher per semester? per year? | 11. Class rosters |
| 12. What was the total amount of instructional time per course? | 12. School records |
| 13. What staff development activities were offered? | 13. School records |
| 14. What percentage of teachers participated in staff development activities? | 14. School records<br>Teacher survey |
| 15. What percentage of teachers surveyed indicated they prefer 4 X 4 block scheduling to the six-period day? | 15. Teacher survey |



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| ADMINISTRATIVE OPPORTUNITIES | DATA SOURCE |
|---|---|
| 16. What was the total daily transition time between classes? | 16. Master schedule |
| 17. What percentage of students were referred for disciplinary reasons related to behavior problems during the regular school day? | 17. School records |
| 18. What was the percentage of attendance of students? | 18. School records |
| 19. Is there a need for a longer and earlier school day? | 19. Teacher survey<br>Administrative survey<br>Telephone interviews/ other school divisions |
| 20. What additional staff positions were required to implement the scheduling program? Future requirements? | 20. Personnel Department<br>Administrative survey<br>Telephone interviews/ other school divisions |
| 21. Did the use of textbooks and other instructional materials increase? | 21. Educational Resource Ctr.<br>Draw account allocations |
| 22. What additional transportation services were required? | 22. Transportation Department |
| 23. How many classrooms were utilized in the scheduling program? | 23. School records |
| 24. What were the advantages and disadvantages with regard to extra-curricular activities? | 24. Student survey<br>Teacher survey<br>Parent survey<br>School records |
| 25. What accommodations were provided for students with prolonged illnesses or students who transferred? | 25. Student survey<br>Parent survey<br>Teacher survey<br>School records |
| 26. What additional course offerings were required? Future requirements? | 26. Master schedule<br>Administrative survey<br>Telephone interviews/ other school divisions |
| 27. What were the advantages and disadvantages with regard to regular and special instructional programs? | 27. Student survey<br>Parent survey<br>Teacher survey<br>Administrative survey |
| 28. What adjustments to graduation standards were required? Future requirements? | 28. Administrative survey<br>Telephone interviews/ other school divisions |

**PERFORMANCE CRITERIA FOR SUCCESS:**

The following standards will be applied in the evaluation:

**Opportunities for Students**

1. At least 65% of freshmen, sophomores, and juniors earned more than six credits.
2. At least 25% of students who had failed a course made up failed classes within the regular year.
3. There was no increase in the failure rate by department when compared to the failure rate of the 1994-95 school year.
4. At least 65% of students surveyed indicated they actively participated in learning activities more frequently.

5. At least 65% of teachers surveyed indicated students actively participated in learning activities more frequently.
6. At least 65% of students surveyed indicated they received more individual attention.
7. At least 65% of teachers surveyed indicated they provided more individual attention to students.
8. At least 65% of students surveyed indicated they prefer the 4 X 4 block schedule to the six-period day.
9. At least 65% of parents surveyed indicated they prefer the 4 X 4 block schedule to the six-period day.

**Opportunities for Teachers**

10. Teachers had no more than three preparations per semester.
11. Teachers had planning time during the day that exceeded their planning time under the six-period schedule and that equaled at least one-third of instructional time.
12. The average number of students per teacher per semester was reduced when compared to the 1994-95 school year. The average number of students taught per teacher per year increased.
13. At least 65% of teachers participated in volunteer staff development activities.
14. At least 65% percent of teachers surveyed indicated they prefer the 4 X 4 block schedule to the six-period day.

**Administrative Opportunities**

15. The total time in changing classes per day decreased when compared with the 1994-95 school year.
16. The per pupil ratio of disciplinary referrals related to behavior problems during the day was reduced when compared to the referrals in the 1994-95 school year.
17. The percentage of attendance increased when compared with the percentage of attendance of the 1994-95 school year.
18. The dropout rate decreased when compared with the dropout rate in the 1994-95 school year.
19. There were no increases in costs of staffing, facilities, transportation services, instructional materials, or staff training directly related to implementation of 4 X 4 block scheduling.
20. Students in regular and special instructional programs were accommodated in the 4 X 4 block schedule.
21. Students in extracurricular activities were accommodated in the 4 X 4 block schedule.

**ANALYSIS PROCEDURES:**

The design for the evaluation will consist of compiling data from the sources specified in the research questions. Where appropriate, data will be compared to data from the 1994-95 school year at Western Branch High School. In other cases, the performance criteria for success derived from similar programs in other divisions will be used to determine whether the goals and objectives of the 4 X 4 block schedule at Western Branch High School were achieved.

TIMELINE OF EVALUATION ACTIVITIES

| | |
|---|---|
| Interview Project Personnel<br><br>Document Goals and Objectives<br><br>Review Literature | September and October 1995 |
| Establish Research Questions/Objectives and Performance Indicators<br><br>Begin Data Collection | October and November 1995 |
| Analyze Data and Answer Research Questions<br><br>Compare Performance with Criteria for Success | April and May 1996 |
| Report Findings and Recommendations | July 1996 |
| Implement Recommendations | August 1996 |

ADMINISTRATOR

TEAM LEADER

12/20/95
DATE

CHESAPEAKE
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# SUPPORTING DOCUMENTATION TO THE STUDY:

## REVIEW OF THE LITERATURE

## REVIEW OF THE LITERATURE

The Review of the Literature provides information related to the research which guided the data collection activities of the evaluation.

# 4 X 4 BLOCK SCHEDULE EVALUATION
# REVIEW OF THE LITERATURE
# CONCLUSIONS

A review of the literature was conducted to guide the data collection phase of the evaluation to assist in answering the following questions:

1. **What is the impact of the 4 X 4 schedule on students?**
   - The opportunity to take two additional courses a year benefits all levels of students. Higher achieving students have the chance to accelerate and complete college courses in the junior and senior years. Average students can take advantage of the opportunity to take multiple course offerings to accelerate beyond the typical courseloads. Lower achieving students can retake failed courses immediately and graduate with their peers. Students, therefore, take more courses per year but have fewer classes to prepare for each semester.
   - Longer class periods (1) promote more active participation in the learning process by students if instructional strategies include the three stages of presentation, application, and synthesis, (2) permit more individual attention from teachers, and (3) allow students more time to meet requirements for laboratory time in courses.
   - The 4 X 4 schedule promotes learning which is more conceptual in nature, more indepth, and better retained by students. Emphasis tends to shift from what material is covered to what students learn. Evaluations conducted by some school divisions indicate that grades in general improve.
   - Students in Advanced Placement courses and in the band, students who transfer, and students with absences are often difficult to accommodate.
   - Results of evaluations generally indicate that students prefer the 4 X 4 schedule over the traditional six-period schedule.

2. **What is the impact of the 4 X 4 schedule on teachers?**
   - Teachers in the 4 X 4 schedule have fewer students each term but teach more students a year than in a traditional schedule.
   - The number of teaching periods each semester decreases from five in a traditional schedule to three in the 4 X 4 schedule; planning time is double in length, and the number of classes taught per year increases from five to six which results in efficiency "savings."
   - Ninety-minute blocks allow time for extended lesson plans which can include extensive application of learning. Teachers, however, often require assistance in planning and teaching in the longer blocks. This is true especially in disciplines which have traditionally emphasized factual rather than conceptual teaching. In-service for teachers is the key to making longer blocks effective.
   - Team teaching is facilitated and collaboration among and within departments typically is fostered in a 4 X 4 schedule.
   - Results of evaluations generally reveal that teachers prefer the 4 X 4 schedule to the traditional six-period schedule.

3. **What is the impact of the 4 X 4 schedule on the administration?**
   - In increasing numbers each year administrators are viewing block scheduling as an effective means of delivering the curriculum and managing large student populations.
   - Collaborative implementation of the block schedule by students, parents, teachers, and the administration (after careful examination of the advantages and disadvantages to all groups) can represent a significant contribution to school reform.
   - The 4 X 4 schedule reduces the number of class changes each day thereby reducing the disciplinary referrals that can occur as large groups of students exit classrooms.
   - Attendance of students and teachers and grades of students typically improve with implementation of the 4 X 4 schedule; evaluations in some school divisions, however, have found little impact in these areas.
   - Adjusting the curriculum and achieving a balance in the scheduling of core and elective courses are important to the success of the schedule.
   - The schedule can result in the better utilization of resources such as teachers, classrooms, and textbooks. Administrators, however, should be prepared for either staffing or class size to increase with the implementation of the 4 X 4 schedule.
   - Results of evaluations generally indicate that administrators prefer the 4 X 4 schedule to the traditional six-period schedule.

## 4 X 4 BLOCK SCHEDULE EVALUATION
## REVIEW OF THE LITERATURE

| **Kosanovic**<br>(1992 report of the schedules of 3,983 U.S. schools with 1000+ students) | **O'Neill**<br>(Productive Use of Time and Space Issue - Educational Leadership) | **Hackman**<br>(Productive Use of Time and Space Issue - Educational Leadership) | **Cushman**<br>(The Coalition of Essential Schools: HORACE) | **NASSP Report,**<br>"Breaking Ranks: Changing an American Institution" |
|---|---|---|---|---|
| In 1992, 96% of the nation's schools and 98% of Virginia's schools were using a traditional schedule.<br><br>Restructuring high schools to more effectively deliver the curriculum must include changes to the instructional schedule.<br><br>Variables which affect the daily schedule include:<br>Graduation requirements<br>Number of course offerings<br>Instructional minutes a day<br>Building constraints<br>Staffing<br>Laws and policies<br>Carnegie units<br>Curriculum requirements | In 1995, 46% of schools in Virginia used some type of block schedule.<br><br>Block schedules can be a catalyst for classroom innovation but do not always result in innovation.<br><br>Scheduling challenges include:<br><br>1. Providing instruction appropriate for the longer format--requires more than "stand-and-deliver" teaching.<br><br>2. Covering the curriculum--the key is "what students learn, not what is covered."<br><br>Staff Development is critical if teachers are to adjust to longer class periods.<br><br>The 4 X 4 schedule allows students who fail and may be at risk for dropping out to "start anew" the next semester.<br><br>Many schools find that disciplinary problems decrease and that students and teachers get to know each other better.<br><br>Problems with Advanced Placement and Band programs must be addressed in the 4 X 4 schedule and often involve splitting a block so that classes meet yearlong. | Parents, students, administrators, and teachers collaboratively approach school reform when they design and implement a block schedule.<br><br>In 1994, approximately 40% of schools nationwide were using a form of block scheduling.<br><br>Ten guidelines for implementing the block schedule:<br><br>1. Goals should focus on the common consideration of "What is best for students?"<br>2. School Board approval is required.<br>3. Faculty need time to assess and prepare for the change.<br>4. Principals should ensure involvement by all, be able to explain the rationale for change, actively support faculty as they adapt their instructional methods. Parents and students have a unique perspective which can provide valuable insights.<br>5. Outside sources should be tapped.<br>6. A pilot schedule which modifies the traditional schedule should be considered.<br>7. Cost-saving solutions could result in no additional cost.<br>8. Conduct faculty inservices which emphasize collaboration.<br>9. Evaluate using criteria such as disciplinary referrals, attendance data, dropout rates, feedback from surveys of teachers, parents, students.<br>10. Foster collaboration and reflective practice among faculty members by sharing and celebrating successes. | Shorter class periods invite teachers to emphasize recall and recognition of facts.<br><br>More time allows for the ideal stages of presentation, application, and synthesis which promote retention.<br><br>Students who remember 85% of what they learned four months after a course retain 80% after eleven months.<br><br>Teaching methods which focus on understanding promote retention.<br><br>In-service is the key to making longer blocks work, including techniques such as a 90-minute workshop in which strategies teachers can use right away are modeled. | "The time available in a uniform six-hour day and a 180-day year is the unacknowledged design flaw in American education."<br><br>Block schedules provide extended periods that can be devoted to one course or split between courses.<br><br>To take advantage of block schedules, teachers will have to prepare themselves to do more than lecture twice as long. |

## 4 X 4 BLOCK SCHEDULE EVALUATION
## REVIEW OF THE LITERATURE

| | **CANADY/RETTIG** Block Scheduling: A Catalyst for Change in High Schools, 1995 | **NASSP REPORT,** "Block Scheduling: Changing the System," 1996 | **Shortt (VA Dept of Education) & Thayer** NASSP Bulletin, 1996 | **Edwards** NASSP Bulletin, 1993 NASSP Bulletin, 1995 | **NC Department of Public Instruction** Organization of School Time Study (1994 Preliminary Results) | **Block Scheduling Evaluation Report, Lafayette High School, Williamsburg,VA** (1994-95 School Year) | **Virginia Education Association Recommendations** Virginia Journal of Education, 1994 |
|---|---|---|---|---|---|---|---|
| **Impact on Students** | The 4 X 4 schedule*<br>Promotes active learning<br>Accommodates student differences with various amounts of learning time<br>Provides greater opportunities for acceleration<br>Provides the opportunity to enroll in a greater number and variety of courses (8/yr)<br>Provides early opportunity to retake failed courses and regain graduation pace of peers<br>Means fewer classes, quizzes, tests, homework assignments on any one day<br>Information Reported To Canady by High School Principals Across the Nation: Students had a higher engagement rate (after teachers received assistance in developing lessons to engage learners)<br>Without special plans, students experience difficulty recovering from absences<br>AP scores hold or improve if classes are scheduled properly (usually over more than one term)<br>Students are likely to complete more courses<br>At-risk students more likely stay in school (can remediate immediately)<br>*A full explanation of variations (e g , the A-B schedule) is given by Canady and Rettig in their referenced book | The 4 X 4 schedule:<br>Promotes better understanding of lessons<br>Results in higher AP scores<br>Compresses a 1-year course into 1 semester<br>Requires interaction with only 4 teachers per semester<br>Provides the opportunity for 4 courses, 4 credits each semester<br>Provides the opportunity to graduate in 3 years<br>Provides the opportunity to complete college courses in junior and senior years | The 4 X 4 schedule:<br>Permits greater student learning<br>Permits laboratory work<br>Permits student- directed interactive activities<br>Assists in educating all students when combined with incentives to promote learning | The 4 X 4 schedule:<br>Simplifies the daily schedule while increasing the number of classes taken in 4 years of high school<br>Facilitates mastery by limiting the number of courses each semester to 4<br>Facilitates catching up because of fewer classes to make up<br>Can more than double instructional time available in AP classes when AP classes are two-credit, yearlong courses<br>Assists 9th graders because they risk only one-eighth rather than one-fourth of the high school career in transitioning to high school | The 4 X 4 schedule:<br>Is believed by 70% or more of the educators surveyed to<br>Result in fewer classes and exams to prepare for<br>Provide students the opportunity to take more courses per year<br>Make accommodating transfer students difficult<br>Make recovering from absences difficult | The 4 X 4 schedule:<br>Was favorably responded to in surveys of students and parents<br>Increased credits earned by 34%<br>Increased the percentage of A's earned by 8%<br>Increased the failure rate by 12%<br>Did not affect SAT, AP, and State testing results<br>Did not affect student attendance and conduct | |

**4 X 4 BLOCK SCHEDULE EVALUATION**
**REVIEW OF THE LITERATURE**

| | **CANADY/RETTIG** Block Scheduling: A Catalyst for Change in High Schools, 1995 | **NASSP REPORT,** "Block Scheduling: Changing the System," 1996 | **Shortt (VA Dept of Education) & Thayer** NASSP Bulletin, 1996 | **Edwards** NASSP Bulletin, 1993 NASSP Bulletin, 1995 | **NC Department of Public Instruction** Organization of School Time Study (1994 Preliminary Results) | **Block Scheduling Evaluation Report, Lafayette High School, Williamsburg,VA** (1994-95 School Year) | **Virginia Education Association Recommendations** Virginia Journal of Education, 1994 |
|---|---|---|---|---|---|---|---|
| **Impact on Teachers** | Reduces the number of students to prepare for and interact with<br><br>Reduces the number of classes and assignments<br><br>Reduces fragmentation of class periods<br><br>Promotes active teaching<br><br>Provides increased "quality" instructional time<br><br>Provides the opportunity to plan extended lessons<br><br>Reduces the number of class changes<br><br>Encourages teaching with a variety of instructional models<br><br>Provides a block of 90 minutes of planning time<br><br>Information Reported To Canady by High School Principals Across the Nation<br><br>There is initial stress until teachers learn to plan and teach in the longer blocks<br><br>Teachers cover less material but in more depth<br><br>In disciplines such as Social Studies, teachers have difficulty moving from factual to conceptual teaching<br><br>Teachers find the application stage of lesson plans the most difficult to develop/implement | Reduces the number of students per semester<br><br>Reduces the teaching periods to 3 per day<br><br>Requires additional training in teaching methodology | Offers opportunities for greater flexibility in number of classes taught each semester (3 X 3, 4 X 2, etc )<br><br>Requires adjustment to teaching content in larger blocks of time<br><br>Requires opportunities for teachers to grow professionally and to sharpen teaching skills | Allows a greater focus of time and energy on instruction and learning with fewer classes and students each day<br><br>Provides the opportunity for greater attention to students' individual learning needs<br><br>Facilitates team teaching, interdisciplinary studies, and other cooperative teaching strategies | Is believed by 70% or more of the educators surveyed to<br><br>Provide longer and/or more planning periods<br><br>Result in more effective use of teacher time<br><br>Result in fewer preparations<br><br>Allow for more high quality instruction<br><br>Provide the opportunity to get to know students better<br><br>Take less time to change/get settled | Was favorably responded to in surveys of teachers<br><br>Promoted better "quality" instructional time<br><br>Resulted in the use of a greater variety of teaching strategies than in the traditional schedule | Should result in teachers teaching no more than 5 classes per year for which graduation credit is awarded<br><br>Should result in daily planning time equal to at least 1/3 of classroom instructional time<br><br>Requires use of new teaching and strategies<br><br>Requires use of instructional aides when inclusion is implemented |

**4 X 4 BLOCK SCHEDULE**
**REVIEW OF THE LITERATURE**

| | **CANADY/RETTIG** Block Scheduling: A Catalyst for Change in High Schools, 1995 | **NASSP REPORT, MAY 1996** "Block Scheduling: Changing the System," 1996 | **Shortt (VA Dept of Education) & Thayer** NASSP Bulletin, 1996 | **Edwards** NASSP Bulletin, 1993 NASSP Bulletin, 1995 | **NC Department of Public Instruction** Organization of School Time Study (1994 Preliminary Results) | **Block Scheduling Evaluation Report, Lafayette High School, Williamsburg, VA (1994-95 School Year)** | **Virginia Education Association Recommendations** Virginia Journal of Education, 1994 |
|---|---|---|---|---|---|---|---|
| **Impact on Administration** | Reduces class changes and movements<br><br>Reduces duplication and inefficiencies<br><br>Requires fewer textbooks<br><br>Increases either staffing or class size<br><br>Results in fewer discipline problems<br><br>Requires a balance in scheduling of elective and core courses<br><br>Information Reported to Canady by High School Principals Across the Nation<br>The number of disciplinary referrals decreased<br><br>Student and teacher attendance will likely improve as will number of class tardies<br><br>Number of students on A and B Honor Roll increased<br><br>Graduation rates at least held<br><br>Curriculum adjustments need to be made<br><br>The educational bureaucracy which supports traditional scheduling affects issues such as accommodations for AP testing | Fosters team spirit<br><br>Reduces amount of inappropriate behavior<br><br>Increases attendance<br><br>Results in higher grades<br><br>Requires little or no increased cost<br><br>Affects elective strands<br><br>Requires teacher, parent, and administrative buy-in | Requires attention to the following concerns:<br><br>Information retention by students<br><br>Transfer students<br><br>AP offerings<br><br>Effect on electives<br><br>Balancing student and teacher schedules<br><br>Cost (additional staffing or increased class loads)<br><br>Accreditation<br><br>Requires monitoring to determine effects on teaching and learning | Does not significantly lengthen the school day<br><br>Provides the opportunity for an 8-course, in-depth sequence of study rather than the present 4<br><br>Increases the number of students taking upper level classes and earning advanced studies diplomas<br><br>Provides the equivalent of two additional years to prepare for and successfully complete advanced studies classes<br><br>Improves utilization of existing resources (i.e., teachers, classrooms, textbooks) | Is believed by 70% or more of the educators surveyed to provide the opportunity for offering more electives | Had little impact on attendance and conduct of students<br><br>Did not improve or lower SAT, AP, and State test scores | |

**4 X 4 BLOCK SCHEDULE EVALUATION**
**REVIEW OF THE LITERATURE**


Canady, R. L., and M.D. Rettig. Block Scheduling: A Catalyst for Change in High Schools. Princeton, New Jersey: Eye on Education, 1995.

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Kosanovic, Gerald. Retooling the Instructional Day. Reston, Virginia: NASSP, 1994.

NASSP Curriculum Report, May 1996, "Block Scheduling: Changing the System." Vol. 25, no. 5.

O'Neill, John. "Finding Time to Learn," Educational Leadership (November 1995): 11 -15.

NASSP Report, 1996, "Breaking Ranks: Changing an American Institution."

Shortt, Thomas L., and Yvonne Thayer. "What Can We Expect to See in the Next Generation of Block Scheduling?" NASSP Bulletin (May 1995): 53 - 62.

_____. "VEA Recommendations on Block Schedules." Virginia Journal of Education, (December 1994): 11.

CHESAPEAKE
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# SUPPORTING DOCUMENTATION TO THE STUDY:

# MEETING WITH THE FACULTY EVALUATION COMMITTEE

## MEETING WITH THE FACULTY EVALUATION COMMITTEE

This section provides the results of the meeting held to discuss the responsibilities of the committee which collected school-related data and the Program Evaluation Team.

## 4 X 4 BLOCK SCHEDULE EVALUATION
## MEETING WITH THE FACULTY EVALUATION COMMITTEE

**PURPOSE OF THE MEETING**: On January 31, 1996, three members of the Program Evaluation Team met with three members of the WBHS Faculty Evaluation Committee. The intent of the meeting was to discuss the data collection responsibilities of the Program Evaluation Team and the Faculty Evaluation Committee and to provide the opportunity for feedback from members of the Faculty Evaluation Committee regarding the new schedule.

**FINDINGS**:

1. The Faculty Evaluation Committee will be responsible for collecting statistical data such as dropout rate, attendance, and disciplinary referrals. They indicated that all data being requested will be available by June. They will provide data for previous years when available. Western Branch used a modified alternating block schedule in 1993-94 and 1994-95. The 1992-93 school year was the last year of the pure six-period schedule. The Program Evaluation Team will mail surveys to parents, students, teachers, and administrators; collect data from central office directors as needed; conduct interviews with other school divisions by phone; conduct interviews with WBHS department heads; and conduct interviews with students.

2. Faculty members suggested the following areas of concern which should be addressed at some point in the evaluation:
   - the imbalance in the number of students among teachers which results as core courses become overloaded and as students seek to make up failed work during the second term
   - how to accommodate transfer students
   - effects of the schedule on band, orchestra, and chorus
   - the need for lengthening the school day and beginning the school day earlier
   - impact on vocational education and other elective courses
   - lack of space in classes for students who failed the first term
   - the need for more laboratory time in courses requiring labs
   - use of cost per course when analyzing the cost of the new schedule
   - the fact that AP testing takes place in the spring but some courses are taught during the first term

3. Faculty members also shared the following information:
   - Other variables in addition to the new schedule may contribute if there is a reduction in disciplinary problems during the day (i.e., use of security cameras, monitors, a new tardy policy).
   - Some courses such as Algebra are taught all year to provide enough time to cover the material; in most courses there is ample time to cover the material in the new schedule.

- All committee members indicated they disliked the alternating schedule of the two previous years.
- The committee approved of the plan to interview groups of students.

4. All parties understand that the Program Evaluation Team will have the sole responsibility for analyzing data collected by both groups.

**CONCLUSIONS:**

1. The Faculty Evaluation Committee and Program Evaluation Team are aware of their data collection responsibilities and these responsibilities are appropriate.

2. All areas of concern expressed by the committee except one already have been addressed in the evaluation proposal. The issue of balancing students among teachers will be addressed by obtaining the average number of students by department and will be collected by the Faculty Evaluation Committee.

**RECOMMENDATIONS:**

- Both groups should begin documenting information as it becomes available.

CHESAPEAKE PUBLIC SCHOOLS

# SUPPORTING DOCUMENTATION TO THE STUDY:

## INFORMATION FROM THE WBHS FACULTY EVALUATION COMMITTEE

## INFORMATION FROM THE WBHS FACULTY EVALUATION COMMITTEE

This section provides the data collected by the Faculty Evaluation Committee from school records and the related findings, conclusions, and recommendations.

## 4 X 4 BLOCK SCHEDULE EVALUATION
## INFORMATION FROM THE WBHS FACULTY EVALUATION COMMITTEE

**PURPOSE OF THE DATA COLLECTION:**
The Faculty Evaluation Committee collected information from a variety of school sources to answer the following research questions:

**IMPACT ON STUDENTS:**
1. What percentage of students took two additional classes during the year? What percentage of students took combinations of courses that were not possible in the six-period schedule?
2. What percentage of students made up failed classes within the regular school term?
3. What was the student failure rate by department? What was the dropout rate?
4. What was the grade distribution by department?

**IMPACT ON TEACHERS:**
5. What was the average number of teacher preparations each semester?
6. What was the average amount of planning time for teachers during the day?
7. What was the average number of students per teacher per semester? Per year?
8. What was the total amount of instructional time per course?
9. What staff development activities were offered?
10. What percentage of teachers participated in staff development activities?

**IMPACT ON THE ADMINISTRATION:**
11. What was the total daily transition time between classes?
12. What percentage of students were referred for disciplinary reasons related to behavior problems during the regular school day?
13. What was the percentage of attendance of students?
14. What was the number of classrooms utilized?
15. What additional course offerings were required in the new schedule?

**PERFORMANCE CRITERIA FOR SUCCESS:**
1. At least 65% of freshmen, sophomores, and juniors earned more than six credits.
2. At least 25% of students who had failed a course made up failed classes within the regular year.
3. There was no increase in the failure rate by department when compared to the failure rate of the 1994-95 school year.
4. Teachers had no more than three preparations per semester.
5. Teachers had planning time during the day that exceeded their planning time under the six-period schedule and that equaled at least one-third of instructional time.
6. The average number of students per teacher per semester was reduced when compared to the 1994-95 school year. The average number of students taught per teacher per year increased.
7. At least 65% of teachers participated in volunteer staff development activities.
8. The total time in changing classes per day decreased when compared with the 1994-95 school year.

9. The per pupil ratio of disciplinary referrals related to behavior problems during the day was reduced when compared to the referrals in the 1994-95 school year.
10. The percentage of attendance increased when compared with the percentage of attendance of the 1994-95 school year. The dropout rate decreased when compared with the dropout rate in the 1994-95 school year.
11. There was no increase in the number of classrooms utilized in the 1995-96 school year as compared with the 1994-95 school year.

**FINDINGS:**

**IMPACT ON STUDENTS:**

1. Eighty percent of freshmen, sophomores, and juniors earned more than six credits in 1995-96. In addition, some students were able to take combinations of courses not available in the six-period schedule including the following:
   - Thirty-one percent of juniors (121) and eleven percent of seniors (42) took two math courses.
   - Seventeen percent of juniors (66) and six percent of seniors (21) took two foreign languages.
   - Three percent of seniors (11) took history and government.
   - Two percent of juniors (8) took Government and English to graduate.
   - Two percent of seniors (7) took two English courses to graduate.

2. Approximately thirty-four percent (34.25%) of students who failed a course retook the course in the second term.

3. The percentage of failures in the 1995-96 school year decreased in six out of eleven subject areas. In the five subjects in which there was an increase in the failure rate, only one subject increased by more than one percent (see Chart 1, page 40). Information regarding the dropout rate for the 1995-96 school year was not available for this report.

4. The percentage of A's increased in the 1995-96 school year in all subject areas except Vocational Education in which there was one percent fewer A's (see Chart 2, page 41). The percentage of B's increased by one to three percent in seven out of eleven subject areas and by ten percent in Physical Education (see Chart 2, page 41).

   The grade distributions for all departments are presented in Chart 3, page 42.

**IMPACT ON TEACHERS:**

5. Approximately eighty-three percent of the faculty had one or two preparations in both terms of the 1995-96 school year (a total of three preparations was typical for teachers in the six-period schedule).

6. Teachers averaged ninety minutes of planning per day in the 1995-96 school year versus fifty-one minutes in the previous school year.

**CHART 1**
**STUDENT FAILURE RATE BY DEPARTMENT**

| DEPARTMENT | 1995-96 | 1994-95 | INCREASE | DECREASE |
|---|---|---|---|---|
| English | 5.9% | 5.7% | .2% | |
| Math | 8.7% | 9.7% | | 1.0% |
| Science | 11.0% | 11.8% | | .8% |
| Social Studies | 9.6% | 8.7% | .9% | |
| Foreign Language | 3.5% | 6.1% | | 2.6% |
| Physical Education | 5.5% | 12.4% | | 6.9% |
| Business | 2.2% | 5.5% | | 3.3% |
| Special Education | 3.0% | 3.7% | | .7% |
| Fine Arts | | | | |
| Art | 5.4% | 4.5% | .9% | |
| Music | 1.3% | .3% | 1.0% | |
| Vocational Education | 4.9% | 3.3% | 1.6% | |

## CHART 2
## GRADE DISTRIBUTION BY DEPARTMENT (A'S AND B'S)

| PERCENTAGE OF A'S | | | | |
|---|---|---|---|---|
| DEPARTMENT | 1995-96 | 1994-95 | INCREASE | DECREASE |
| ENGLISH | 13% | 12% | 1% | |
| MATH | 25% | 19% | 6% | |
| SCIENCE | 14% | 10% | 4% | |
| SOCIAL STUDIES | 16% | 14% | 2% | |
| FOREIGN LANGUAGE | 27% | 20% | 7% | |
| PHYSICAL EDUCATION | 25% | 16% | 9% | |
| BUSINESS | 43% | 31% | 12% | |
| SPECIAL EDUCATION | 27% | 24% | 3% | |
| FINE ARTS - ART<br>MUSIC | 33%<br>64% | 26%<br>54% | 7%<br>10% | |
| VOCATIONAL EDUCATION | 46% | 47% | | 1% |
| PERCENTAGE OF B'S | | | | |
| ENGLISH | 33% | 31% | 2% | |
| MATH | 28% | 25% | 3% | |
| SCIENCE | 24% | 23% | 1% | |
| SOCIAL STUDIES | 29% | 27% | 2% | |
| FOREIGN LANGUAGE | 29% | 30% | | 1% |
| PHYSICAL EDUCATION | 31% | 21% | 10% | |
| BUSINESS | 30% | 32% | | 2% |
| SPECIAL EDUCATION | 38% | 38% | - | |
| FINE ARTS - ART<br>MUSIC | 31%<br>24% | 28%<br>26% | 3% | 2% |
| VOCATIONAL EDUCATION | 22% | 20% | 2% | |



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## Chart 3
## Grade Distribution by Department

| | 1995-96 | | | | | | 1994-95 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| English | A-12.9% | B-32.7% | C-30.7% | D-15.7% | E-5.9% | I-1.9% | A-11.9% | B-30.7% | C-32.8% | D-16.9% | E-5.7 % | I-1.8% |
| Math | A-24.5% | B-27.8% | C-22.7% | D-15.4% | E-8.7% | I-.7% | A-19.1% | B-24.8% | C-23.2% | D-21.7% | E-9.7% | I-1.4% |
| Science | A-13.6% | B-23.5% | C-28.6% | D-22.4% | E-11.0% | I-.8% | A-10.4% | B-22.6% | C-28.8% | D-24.9% | E-11.8% | I-1.1% |
| Social Studies | A-15.7% | B-29.4% | C-25.2% | D-18.8% | E-9.6% | I-1.1% | A-13.9% | B-27.1% | C-28.3% | D-20.1% | E-8.7% | I-1.6% |
| Foreign Lang | A-26.6% | B-29.4% | C-24.8% | D-15.3% | E-3.5% | I-.3% | A-19.5% | B-29.7% | C-29.0% | D-14.5% | E-6.1% | I-.9% |
| PE | A-24.8% | B-30.7% | C-23.9% | D-13.4% | E-5.5% | I-1.6% | A-15.8% | B-21.2% | C-28.1% | D-20.9% | E-12.4% | I-1.3% |
| Business | A-43.4% | B-30.0% | C-16.1% | D-7.2% | E-2.2% | I-1.1% | A-30.5% | B-31.5% | C-19.5% | D-11.7% | E-5.5% | I-1.8% |
| Special Ed | A-27.4% | B-37.9% | C-22.0% | D-4.9% | E-3.0% | I-4.5% | A-24.2% | B-37.8% | C-19.2% | D-11.1% | E-3.7% | I-3.7% |
| Fine Arts | | | | | | | | | | | | |
| Art | A-32.7% | B-30.9% | C-24.7% | D-5.8% | E-5.4% | I-.4% | A-26.3% | B-28.1% | C-30.9% | D-9.0% | E-4.5% | I-.9% |
| Music | A-63.6% | B-23.7% | C-8.4% | D-2.1% | E-1.3% | I-.7% | A-53.7% | B-25.9% | C-10.9% | D-5.6% | E-.3% | I-3.3% |
| Voc'l Ed | A-45.9% | B-22.3% | C-15.9% | D-4.1% | E-4.9% | I-6.7% | A-47.0% | B-20.1% | C-17.6% | D-9.2% | E-3.3% | I-2.5% |

7. The average number of students per teacher decreased in each term but increased for the year in all departments in the 4 X 4 schedule.

   The average number of students per class did not change significantly in the majority of departments from the 1994-95 school year to the 1995-96 school year. Where class size increased, it was likely due to the new schedule because students had the opportunity to take more electives and because scheduling conflicts produced increased enrollments in some core courses (see Chart 4, page 44). In a comparison of classes with over thirty students in four major departments at Western Branch High School and Deep Creek High School, WBHS had more classes with over thirty students (see Chart 4A, page 45). The number of larger classes, however, was not significantly greater.

8. In the traditional six-period schedule, instructional time for each credit course was 9,180 (51 minutes X 180 days). In the 4 X 4 schedule, instructional time for each credit course is 8,100 minutes (90 minutes X 90 days). Research by Canady/Rettig, however, indicates that instructional minutes are saved in classes in the 4 X 4 schedule for the following reasons:

   - Less time is required for classes to set up and clean up.
   - Time used for moving between classes can be absorbed into instructional periods.

9. Staff development activities offered from 1990 through 1995 to prepare teachers for the transition to the 4 X 4 schedule included the following:

   ( 1) two Cooperative Learning workshops
   ( 2) three Authentic Assessment workshops
   ( 3) one Portfolio Assessment workshop
   ( 4) one Learning Styles seminar
   ( 5) one Multiple Intelligence seminar
   ( 6) two Alternative Scheduling workshops
   ( 7) one Lesson Planning workshop
   ( 8) one Pacing Guide/Curriculum Alignment workshop
   ( 9) one Paideia seminar
   (10) two Reading to Learn workshops
   (11) two workshops with Ted Blake Consultants

10. Eighty-seven percent of teachers participated in voluntary staff development activities.

## CHART 4
## AVERAGE NUMBER OF STUDENTS PER TEACHER BY DEPARTMENT

| | 1995 - 1996 | | | | 1994-1995 | | | |
|---|---|---|---|---|---|---|---|---|
| | FALL | SPRING | TOTAL | PER BELL | TOTAL | PER BELL | TOTAL INCREASE | PER BELL INCREASE/DECREASE |
| English | 72 | 68 | 140 | (23.3) | 111 | (22.2) | 29 | 1.1 |
| Math | 76 | 70 | 146 | (24.3) | 109 | (21.8) | 37 | 2.5 |
| Science | 68 | 73 | 141 | (23.5) | 122 | (22.4) | 19 | 1.1 |
| Social Studies | 69 | 72 | 141 | (23.5) | 118 | (23.6) | 23 | .1 |
| Foreign Language | 66 | 64 | 130 | (21.6) | 109 | (21.8) | 21 | .2 |
| Physical Education | 106 | 94 | 200 | (33.3) | 169 | (33.8) | 31 | .5 |
| Business | 62 | 55 | 117 | (19.5) | 79 | (15.8) | 38 | 3.7 |
| Special Education | 21 | 21 | 42 | (7.0) | 19 | (3.8) | 23 | 3.2 |
| Fine Arts | | | | | | | | |
| Art | 119 | 99 | 218 | (36.3) | 145 | (29.0) | 73 | 7.3 |
| *Music | 260 | 256 | 516 | *- | 285 | *- | 231 | *- |
| Vocational Education | 47 | 24 | 71 | (11.8) | 54 | (10.8) | 17 | 1.0 |
| ROTC | 68 | 63 | 131 | (21.8) | 122 | (24.4) | 9 | 2.6 |

*In the 1994-95 school year, the band had 130 students versus 106 students first term and 96 students second term in the 1995-96 school year. The chorus had 104 students in 1994-95 versus 63 students first term and 75 students second term in 1995-96. The orchestra had 51 students in 1994-95 versus 67 students in the first term and 71 students in the second term in 1995-96.

## PROGRAM EVALUATION TEAM

Dr. Davida W. Mutter, Director of Staff Development and Program Evaluation

Mr. Fred Cabler, Assistant Superintendent for Budget and Finance

Dr. Jim Roberts, Director of Budget

Dr. Elaine Chase, Assistant in Program Evaluation

Mr. Arthur V. Brandriff, Jr., Principal, Western Branch High School, ad hoc member

Mrs. Elizabeth Foster, KPMG Peat Marwick, external advisor

## CHART 4A
## COMPARISON OF CLASS SIZE BY SUBJECT AREA

| | Western Branch High | Deep Creek High |
|---|---|---|
| | CLASS SIZE OVER 30* | |
| English | 5 | 0 |
| Math | 6 | 2 |
| Science | 4 | 3 |
| Social Studies | 5 | 2 |

*Based on enrollments in semester and yearlong courses for the 1995-96 school year

**IMPACT ON THE ADMINISTRATION:**

11. The total transition time between classes in the 1995-96 school year was twenty minutes versus forty-two minutes in the previous year or twenty-two minutes less.

12. Three percent of students were referred for disciplinary reasons related to behavior problems during the regular school day in the 1995-96 school year versus four percent in the previous year or one percent less.

13. Percentage of attendance of students in the 1995-96 school year was approximately ninety-five percent (95.40%) versus ninety-four percent (93.97%) in the previous year.

14. Ninety-two classrooms were utilized in the 1995-96 school year versus eighty-eight in the previous year.

15. Additional course offerings in the 1995-96 school year due to the implementation of the 4 X 4 schedule included AP Art History, Classical Greek, Careers: Media, Internship, Anatomy & Sports Medicine, Anatomy & Physiology, and Marine Biology.

**CONCLUSIONS:**

1. A high percentage of freshmen, sophomores, and juniors earned more than six credits in the new schedule (80%), **satisfying the performance criterion for success**. The opportunity to take additional credits also afforded students the opportunity to take combinations of courses not possible in the six-period schedule.

2. Approximately one-third of the students who failed a course retook the course the second term, **satisfying the performance criterion for success**.

3. Only one department experienced an increase of over one percent in the failure rate from the previous year (a 1.6% increase in the Vocational Department). Over half of the departments experienced a decrease in the percent of failures, including almost seven percent fewer failures in the PE Department. Therefore, **the performance criterion for success was satisfied**.

4. All but one department experienced an increase in percentage of A's; over two-thirds of the departments experienced an increase in percentage of B's. Overall, the grade distributions improved in the 1995-96 school year as compared with the previous year.

5. A high percentage of teachers (83%) had only one or two preparations in both terms, **satisfying the performance criterion for success.**

6. Teachers averaged ninety minutes of planning time in the 4 X 4 schedule which was thirty-

nine more minutes than in the six-period schedule, **satisfying the performance criterion for success**.

7. The average number of students per teacher per semester was reduced, **satisfying the performance criterion for success**. Having fewer students each semester in the 4 X 4 schedule was viewed as an asset in all departments except the Music Department which experienced reductions in enrollments in the band and chorus. The largest increase in students per bell was in the Art Department which had an average of 7 more students per class.

8. A high percentage of teachers participated in voluntary staff development activities (87%), **satisfying the performance criterion for success.**

9. Fewer minutes (22) were required for changing classes each day in the 4 X 4 schedule than in the six-period schedule, **satisfying the performance criterion for success**.

10. Disciplinary referrals related to behavior problems during the regular school day decreased in the new schedule, **satisfying the performance criterion for success**.

11. Four additional classrooms were required in the 1995-96 school year. School records indicate that the additional space requirements were not related to implementation of the 4 X 4 schedule but to factors associated with an increased student population. Therefore, the **performance criterion for success related to use of facilities is satisfied**.

12. Seven new courses were added in the new schedule to allow students to take more credits.

**RECOMMENDATIONS:**

Based on the established criteria and the findings from this data, no recommendations are suggested.

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# SUPPORTING DOCUMENTATION TO THE STUDY:

# SURVEY OF TEACHERS

## SURVEY OF TEACHERS

This section provides the results of the formal survey of the faculty members and the related findings, conclusions, and recommendations.

## 4 X 4 BLOCK SCHEDULE EVALUATION
## SURVEY OF TEACHERS

**PURPOSE OF THE SURVEY:** Surveys were sent in April 1996 to **all 105** faculty members at WBHS to determine the impact of the 4 X 4 schedule on students and teachers. **Seventy-two** responses were received for a return rate of **69%**.

**PERFORMANCE CRITERIA FOR SUCCESS:**

1. Teachers had no more than three preparations per semester.
2. Teachers had planning time during the day that exceeded their planning time under the six-period schedule and that equaled at least one-third of instructional time.
3. At least 65% of teachers participated in volunteer staff development activities.
4. The schedule accommodated students and teachers with regard to required courses.
5. The schedule accommodated students and teachers with regard to elective courses.
6. The schedule accommodated students in extracurricular programs, students with prolonged illnesses, students who transferred, students in special education programs, the advanced placement (AP) program, cooperative work programs, and the music program.
7. At least 65% of teachers surveyed indicated they prefer the 4 X 4 block schedule to the six-period day.

**RESULTS OF THE SURVEY:** See Chart 5, page 50.

**FINDINGS:**

***A number of the items on the survey contained a "not applicable" response. Percentages presented are based on responses of teachers to whom the survey applied and in some cases represent a small sample. The "comments" section under each finding relates to comments written on the survey.***

1. **Ninety-five percent** of teachers said their preparations were limited to three or less each semester.

   **COMMENTS:**
   Teachers commented that the majority of teachers have only two preparations and that they have had more time to plan and prepare in the 4 X 4 schedule. A few teachers indicated that they have struggled to keep up with their work loads.

2. **Ninety-five percent** of teachers said their planning time was at least one-fourth of their instructional day.

   **COMMENTS:**
   Teachers commented that more time is required for grading work because students are

**CHART 5**
**4 X 4 BLOCK SCHEDULE EVALUATION**
**TEACHER SURVEY RESULTS**

| | SURVEY QUESTIONS | SURVEY RESPONSES | | | | | |
|---|---|---|---|---|---|---|---|
| | | YES | NO | 4X4 HELPED | 4X4 HINDERED | 4X4 MADE NO DIFFERENCE | N/A |
| 1 | Were your preparations limited to three or less each semester this year? | 95% | 5% | | | | |
| 2 | Was your planning time at least one-fourth of your instructional day? | 95% | 5% | | | | |
| 3 | Were you able to introduce a greater variety of learning activities each period in the 4x4 schedule than in the six-period schedule? | 84% | 16% | | | | |
| 4 | Were your students more active participants in learning activities in the 4x4 schedule than in the six-period schedule? | 64% | 35% | | | | |
| 5 | Were you able to provide students with more individual attention in the 4x4 schedule than in the six-period schedule? | 77% | 22% | | | | |
| 6 | Is a longer school day needed as a result of the change from the six-period schedule to the 4x4 block schedule? | 51% | 49% | | | | |
| 7 | With regard to extracurricular activities, did the 4x4 schedule | | | 12%<br>*13% | 31%<br>*33% | 51%<br>*54% | 5%<br>- |
| 8 | With regard to accommodating students with absences due to prolonged illnesses, did the 4x4 schedule | | | 7%<br>*7% | 51%<br>*53% | 39%<br>*40% | 3%<br>- |
| 9 | With regard to transfer students (from another state, another school division, another Chesapeake school, or courses within departments at WBHS), did the 4x4 schedule | | | 8%<br>*9% | 47%<br>*55% | 31%<br>*36% | 9%<br>- |
| 10 | Did you participate in at least 75% of the voluntary staff development activities offered this year? | 78% | 19% | | | | |
| 11 | With regard to your required courses, did the 4x4 schedule | | | 55%<br>*69% | 9%<br>*12% | 15%<br>*19% | 20%<br>- |
| 12 | With regard to your elective courses, did the 4x4 schedule | | | 51%<br>*66% | 19%<br>*24% | 8%<br>*10% | 20%<br>- |
| 13 | With regard to the special education program, did the 4x4 schedule | | | 28%<br>*51% | 9%<br>*17% | 18%<br>*32% | 41%<br>- |
| 14 | With regard to the advanced placement program, did the 4x4 schedule | | | 12%<br>*23% | 28%<br>*54% | 12%<br>*23% | 45%<br>- |
| 15 | With regard to the cooperative work program, did the 4x4 schedule | | | 19%<br>*44% | 8%<br>*19% | 16%<br>*38% | 50%<br>- |
| 16 | With regard to band, chorus, or orchestra, did the 4x4 schedule | | | 5%<br>*11% | 34%<br>*68% | 11%<br>*23% | 46%<br>- |
| 17 | Do you prefer the 4x4 block schedule to the six-period schedule? | 86% | 12% | | | | |
| 18 | I teach: Required Subjects 43% - Foreign Language 11% - Fine Arts 9%<br>Business/Vocational Education 15% - Other 18% | | | | | | |

*"Not Applicable" responses are not included in the analysis of data. The first percentage in each box includes all responses.
When percentages do not add to 100%, the survey responses were incomplete



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accomplishing more and that 90 minutes is not enough time to complete all the extra planning, grading, and record keeping 4 X 4 requires, especially for department heads.

3. **Seventy-eight percent** of teachers said they participated in at least 75% of the voluntary staff development activities offered.

4. **Eighty-eight percent** of teachers said the new schedule helped or made no difference in their required courses.

**COMMENTS:**
Some teachers who commented expressed frustration that they had to eliminate activities, cover material without proper reinforcement, and cover too much material. Several teachers indicated, however, that planning for 4 X 4 made the curricula more concise, that they were able to cover more material, and that the schedule conditions students to learn at a faster pace which prepares them for college classes.

A number of teachers commented that classes were too large which negated some of the opportunities available in the new schedule including the ability to provide more individual attention.

5. **Seventy-six percent** of teachers said the new schedule helped or made no difference in their elective courses.

**COMMENTS:**
Teachers indicated that more students took their elective courses, that more students had the opportunity to enroll in AP courses, and that students generally had the opportunity to take a broader and more appropriate selection of courses.

6. **Sixty-seven percent** of teachers said the new schedule helped or made no difference in extracurricular activities.

**COMMENTS:**
In general teachers commented that arrangements need to be made to accommodate more adequately students in extracurricular and cocurricular activities. Concerns included the following: athletes missed third and fourth blocks when activities were "away," sometimes for several days in a row; students were not accountable for missed work and placed the burden on teachers; clubs suffered because (1) they lost students in the middle of the year and second term students did not join because the year was half over, and (2) the longer school day did not provide allotted time for student involvement in activities.

7. **Forty-seven percent** of teachers said the new schedule helped or made no difference in accommodating students with absences due to prolonged illnesses.

**COMMENTS:**

Teachers commented that attendance is even more important in the 4 X 4 schedule since each absence is the equivalent of two missed class sessions. They said that students who missed more than one week of school had a very hard time making up the work and that a greater commitment from students to being present and on time was needed. A few were frustrated because students did not follow through when teachers provided make-up work.

A few teachers said making up missed work was a little easier because students were dealing with only four subjects and that students who worked hard managed to catch up.

8. **Forty-five percent** of teachers said the new schedule helped or made no difference in accommodating students who transferred.

**COMMENTS:**

Teachers said students who entered from other types of schedules were hindered in the fall semester but were helped in the spring semester. They noted, however, that if students who entered in the fall had difficulty there was the opportunity to retake classes the following semester. Likewise, transfers within courses at WBHS were best accomplished early, but if a student was placed in the wrong class, the student was able to correct the mistake at midyear.

9. **Eighty-three percent** of teachers said the new schedule helped or made no difference in the special education program.

**COMMENTS:**

Teachers commenting were evenly divided in their views regarding effects on special education students. While half of the teachers indicated that students received more individual assistance and academic support, that students were able to retake classes the following semester, or that there was no difference from the six-period schedule, the other half indicated the pace was too fast, that the ninety-minute periods were too long, and that adjustments for this group were needed.

10. **Forty-six percent of teachers** said the new schedule helped or made no difference in the advanced placement program.

**COMMENTS:**

Concerns of teachers were very similar to those voiced by students and parents and included the following: (1) students who took AP courses in the fall had a lapse of time between the end of the course and the AP test in the spring, (2) in spring courses, teachers had not covered the material in time for the AP test in May, (3) in both of the above cases, AP teachers had to work after hours with those taking the AP tests, (4) teachers of AP courses with labs had to omit some of the labs needed to prepare for the test, (5) teachers were of the opinion that tenth grade students were not mature enough to take AP courses but were given this opportunity in the new schedule.

On a more positive note, teachers said the 90-minute blocks were ideal for AP class discussions and for preparing for the exam sessions.

11. **Eighty-two percent** of teachers said the new schedule helped or made no difference in the cooperative work program.

**COMMENTS:**
According to teachers, coordinating students who exited the classroom for the employment portion during second term was difficult, but teachers were pleased that enrollments increased.

12. **Thirty-four percent** of teachers said the new schedule helped or made no difference in the music program.

**COMMENTS:**
Teachers echoed the concerns of other groups that the music programs at WBHS suffered because of the change to the new schedule. Concerns included (1) declines in the band, orchestra, and chorus due to scheduling conflicts, (2) the reluctance of students and parents to invest one-quarter of the student's credits in the program when the student was in the music program both terms, (3) and the dissatisfaction of teachers who had to rebuild the music groups if students were in the music program for only one term.

Some teachers said the music program was the only program to suffer in the new schedule.

13. **Eighty-six percent** of teachers said they prefer the 4 X 4 block schedule to the six-period schedule.

**COMMENTS:**
Several teachers indicated they are still adjusting, that the transition was difficult, but that they are optimistic because of the potential opportunities for students with the schedule.

Teachers also commented that changing courses midyear was refreshing and improved attitudes, that the longer periods kept them from feeling rushed, and that in general the schedule provided the opportunity for meaningful contact with colleagues.

14. **Eighty-four percent** of teachers said they were able to introduce a greater variety of learning activities each period in the 4 X 4 schedule than in the six-period schedule.

**COMMENTS:**
While the majority of teachers commenting said this was a positive aspect of the 4 X 4 schedule and allowed time for meaningful repetition and group projects, other teachers said (1) the compressed curriculum left little time for increased variety, active participation, and individual attention, (2) concepts could not be taught until students had mastered those

already taught (thus homework activities were given to fill time), and (3) more material could not be presented in the 90-minute periods.

15. **Sixty-four percent** of teachers said students were more active participants in learning activities in the 4 X 4 schedule.

**COMMENTS**:
Teachers noted that students became more accustomed to verbal interaction in their classes as compared with students in previous years.

With regard to **student achievement**, the majority of teachers responded positively saying that their students were more focused, more responsible for homework, and demonstrated improved study habits due in part to having only four courses on which to concentrate. They noted that the key to success for the teacher was planning and that the key to success for students was completing homework. Teachers commented that long-term planning for the high school career for all students is essential in the 4 X 4 schedule.

16. **Seventy-seven percent** of teachers said they were able to provide students with more individual attention in the 4 X 4 schedule than in the six-period schedule.

**COMMENTS:**
Teachers said the new schedule (1) gave them more time to work one-on-one with students and to present more material in a greater variety of methods to accommodate different learning styles, (2) resulted in interactions with fewer students each day creating closer ties to students and parents and making it easier to spot and correct learning problems, and (3) provided the opportunity to give special education students more individual assistance.

17. **Fifty-one percent** of teachers said a longer school day is needed as a result of the change from the six-period schedule to the 4 X 4 block schedule.

**COMMENTS:**
Teachers commenting agreed that the school day needs to be lengthened. Most advocated starting the day earlier to provide more time between classes and slightly longer lunch periods, citing that "breathing time" in general was lost in the move to fewer class changes. Teachers indicated that currently there is insufficient time for students and teachers to shift concentration from one class to another, take some personal time, or perform academic errands such as library sign-up and equipment retrieval. Teachers commented that the late starting time hinders students who participate in afternoon activities or who work.

**CONCLUSIONS:**

1. Teacher preparations were limited to three or less each semester which **satisfies the performance criterion for success regarding number of teacher preparations**.

2. Planning time of teachers was at least one-fourth of their instructional day and exceeded their planning time in the six-period schedule which **satisfies the performance criterion for success regarding the amount of planning time of teachers**.

3. More than 65% of teachers participated in voluntary staff development activities which **satisfies the performance criterion for success for this item**.

4. A high percentage of teachers are of the opinion that students and teachers were accommodated in required and elective courses in the new schedule. Teachers agreed with parents and students, however, that some classes had increased enrollments due to scheduling conflicts. In addition, some teachers indicated they had difficulty adjusting their lesson plans to the new schedule.

5. Teachers are of the opinion that students in extracurricular programs, special education programs, and cooperative work programs were accommodated in the new schedule. Teachers agreed with parents and students, however, that the 4 X 4 schedule resulted in some students who participated in extracurricular activities missing too much instructional time.

6. Teachers are divided regarding whether students with absences due to prolonged illnesses were adequately accommodated in the 4 X 4 schedule. Teachers agreed with parents and students that all absences are difficult to make up but further noted that students do not always follow through with make-up work provided by the teacher.

7. Teachers are divided regarding whether students who transferred were adequately accommodated in the new schedule. Teachers are of the opinion that students who transfer in the fall term more often encounter problems while spring transfers may have the opportunity to earn more credits as a result of the transfer.

8. Teachers are divided regarding whether AP students were accommodated in the new schedule. Those who expressed concerns cited the time interval between completion of the class and the exam when students took fall AP courses, the shorter length of spring AP courses, and teachers' inability to cover the curriculum in the compressed courses.

9. Teachers agree with students and parents that students of the music program were not adequately accommodated in the new schedule due largely to scheduling conflicts.

10. A high percentage of teachers (86%) indicated they prefer the 4 X 4 schedule which **satisfies the performance criterion for success for this item.**

11. A high percentage of teachers are of the opinion that they were able to introduce a greater variety of learning activities and that students were more active participants in learning activities in the 4 X 4 schedule.

12. Teachers are of the opinion that they were able to provide more individual attention in the longer class periods.

13. Teachers are divided as to whether a longer school day is needed, but teacher comments indicate that teachers would prefer a school day which begins earlier.

**RECOMMENDATIONS:**

1. Provide staff development activities which assist teachers in the organization and efficient use of the longer planning periods and in preparing three-part lessons which balance explanation, application, and synthesis (see sample lesson plan, page 57). Establish faculty seminar groups that use thirty minutes of the planning bell periodically in order to collaborate on implementation/teaching strategies.

2. Plan for the use of more advanced technology in scheduling, and use the data for staffing to achieve a better balance in the number of students among classes.

3. To the extent possible, schedule adequate sections of academic courses and "popular" elective courses to balance teacher/student ratios within staffing guidelines among classes.

4. Assess the feasibility of an earlier and longer school day (a) to reduce the amount of instructional time lost by students who participate in extracurricular activities, and (b) to add five minutes to lunch periods and passing time between classes.

5. Offer alternative scheduling options for the AP program (e.g., offer AP courses with lab requirements as yearlong, two-credit courses; see other alternatives, pages 58 and 59).

6. Explore ways to expand the services of the instructional lab to better accommodate students who transfer (i.e., use the extended day schedule, which offers students ninety minutes of instruction every Wednesday to make up absences, to serve transfer students as well).

7. Offer alternative scheduling options for the music program (e.g., offer all students the opportunity to take six block courses and two yearlong courses, one of which could be music; see other alternatives, page 58).

**SAMPLE LESSON PLAN**
**DESIGNING LESSONS FOR THE BLOCK SCHEDULE**
**WITH ACTIVE LEARNING STRATEGIES**

**Homework Review (10-15 Minutes)**

**Presentation (20-25 Minutes)**

Direct Instruction
Interactive Lecture
CD Rom
Video Disc
Demonstration
Directed Reading/Thinking
Socratic Seminars
Video Tape

**Activity/Application (30-35 Minutes)**

Computer Reinforcement
Science Laboratory
Role Play
Team Review
Learning Centers
Simulation

**Guided Practice/Application (10-15 Minutes)**

**Reteach/Synthesis (10-15 Minutes)**

**Closure/Synthesis (5 - 10 Minutes)**

Adapted from: Phyllis R. Hotchkiss, Hotchkiss Educational Consulting Services, Richmond, Virginia

Canady, Robert Lynn and Michael D. Rettig, editors. Teaching in the Block: Strategies for Engaging Active Learners. April, 1996.

## ALTERNATIVE SCHEDULES FOR THE MUSIC AND ADVANCED PLACEMENT PROGRAMS

### MUSIC ALTERNATIVE #1

<table>
<tr><th>Block</th><th colspan="2">Semester 1</th><th>Semester 2</th></tr>
<tr><td rowspan="2">1</td><td rowspan="2">Marching Band (9 Weeks) ½ Credit</td><td colspan="2">Concert Band (27 Weeks) 1½ Credits</td></tr>
<tr><td colspan="2">Honors Government, AP Government, or Keyboarding (27 Weeks) 1 1/2 Credits</td></tr>
<tr><td>2</td><td colspan="2"></td><td></td></tr>
<tr><td>3</td><td colspan="2"></td><td></td></tr>
<tr><td>4</td><td colspan="2"></td><td></td></tr>
</table>

### MUSIC ALTERNATIVE #2

| Block | Semester 1 | Semester 2 |
|---|---|---|
| 1 | Marching Band (Mandatory) 1 Credit | Concert Band (Optional) 1 Credit |
| 2 | | |
| 3 | | |
| 4 | | |

### MUSIC AND ADVANCED PLACEMENT ALTERNATIVE #3

<table>
<tr><th>Block</th><th>Semester 1</th><th>Semester 2</th></tr>
<tr><td rowspan="2">1</td><td colspan="2">Music Course (45 minutes) 1 Credit</td></tr>
<tr><td colspan="2">Advanced Placement Course (45 minutes) 1 Credit</td></tr>
<tr><td>2</td><td></td><td></td></tr>
<tr><td>3</td><td></td><td></td></tr>
<tr><td>4</td><td></td><td></td></tr>
</table>

**ADVANCED PLACEMENT ALTERNATIVE #1**
**(Courses with Lab Requirements)**

| Block | Semester 1 | Semester 2 |
|---|---|---|
| 1 | *Honors Chemistry<br>1 Credit | AP Chemistry<br>1 Credit |
| 2 | | |
| 3 | | |
| 4 | | |

*Students have the option of taking AP Chemistry 2nd semester.

**ADVANCED PLACEMENT ALTERNATIVE #2**
**(History, Government, & English)**

| Block | Semester 1 | Semester 2 | |
|---|---|---|---|
| 1 | Advanced Placement English<br>(27 Weeks) 1½ Credits | | Novels<br>(9 Weeks)<br>½ Credit |
| 2 | | | |
| 3 | | | |
| 4 | | | |

CHESAPEAKE PUBLIC SCHOOLS

# SUPPORTING DOCUMENTATION TO THE STUDY:

## INTERVIEWS WITH DEPARTMENT HEADS

## INTERVIEWS WITH DEPARTMENT HEADS

This section provides the results of the interviews with WBHS department heads and the related findings, conclusions, and recommendations.

## 4 X 4 BLOCK SCHEDULE EVALUATION
## INTERVIEWS WITH DEPARTMENT HEADS

**PURPOSE OF THE INTERVIEWS:**

On April 29, 1996, interviews were conducted with ten department heads, the media specialist, and the director of guidance as a follow-up to the survey of teachers to obtain their unique perspectives regarding the impact of the 4 X 4 block schedule on students and faculty members. Those interviewed were asked to comment on the advantages and disadvantages of the new schedule and to share any ideas for improvement. The open-ended format of the interviews (see Interview Format, Appendix 1, page 103) as well as time constraints resulted in comments on many aspects of 4 X 4 that differed from teacher to teacher.

**PERFORMANCE CRITERION FOR SUCCESS:**

See Program Evaluation Proposal, pages 24 and 25.

**RESULTS OF INTERVIEWS**: See Appendix 1, page 103.

**FINDINGS:**

1. With regard to **impact on teachers**, department heads commented as follows:
   - Collaboration has increased within and among departments as teachers have cooperated to adapt to the new schedule and to coordinate pacing guides.
   - The longer class periods are favored, and there is a better use of instructional time and pacing of the curriculum as well as a reduction in number of preparations.
   - The media center has seen increased activity as teachers vary their instructional methods.
   - AP classes have been negatively affected because of the interval between first-term instruction and testing and because of the shorter second term.
   - Enrollment in the music programs has decreased as students have opted to choose other classes because of scheduling conflicts and because they do not wish to take two credits of band, chorus, or orchestra.
   - Contact with work/study students is more challenging because students exit the classroom portion after the first term but continue working during the second term.
   - Some departments are experiencing larger student/teacher ratios due to limited sections of required courses.

2. With regard to **impact on students,** teachers commented as follows:
   - Longer class periods have resulted in more individual attention to students and have been especially beneficial in the special education, vocational education, and physical education departments.
   - Some school clubs have suffered a loss of membership since many clubs previously met at break time during the day; now clubs must meet after school, and students who

depend on bus transportation cannot participate. Also, special accommodations had to be made for some clubs (i.e., the president of a club may be elected first term but not take a course related to the club second term).

- The majority of department heads indicated that students are spending more time on task so that there has been an improvement in overall performance of most students.
- There is greater opportunity for taking electives and for taking a greater variety of classes.
- Transfer students from other schools have been no more difficult to accommodate.
- Average and lower achieving students may have more difficulty adjusting to the 90-minute periods if teachers do not introduce a variety of activities during the longer class periods. The science department head stated that the first term on the 4 X 4 schedule was the first time he had no failures among any groups and is convinced that 4 X 4 helps students "across the board."

3. With regard to **impact on the administration** of the school, teachers commented as follows:
   - The reduction in class changes and the fear of suspension (10 days which results in failure) has improved the disciplinary climate of the school. There has been a loss in the sense of community, however, as all are focused on adjusting to the schedule and less interaction is taking place in the halls. Lunch periods (25 minutes plus 5 minutes of passing time) are effectively shorter as larger numbers of students (due to increased enrollments) must be moved from classroom to cafeteria. Less time between classes has also contributed to a sense of isolation.
   - Attendance has improved as students fear getting behind because of the increased amount of material covered each day.
   - Data processing limitations produced reporting problems. With the six-week grading period instituted at WBHS, report cards were hand-carried by students to teachers for completion which resulted in alterations by students and a report card which was unofficial in appearance.
   - A school day which begins earlier is needed. Students often must leave class early to participate in extracurricular activities (i.e., games which are away). Since school ends at 3:30 p.m. in the 4 X 4 schedule versus 3:13 p.m. in the six-period schedule, a larger amount of instructional time is missed in a more compressed course.
   - A greater emphasis on individual scheduling is necessary if students are to balance their workload with high- and low-homework classes. Students must be guided in choosing courses that take full advantage of the opportunities available in the 4 X 4 schedule (i.e., acceleration, early remediation, and combining courses not possible in the six-period schedule).
   - Parents of music students are concerned about the 4 X 4 schedule since difficult choices have been necessary due to scheduling conflicts (i.e., whether to continue in the music program or take honors and AP courses considered necessary for college-bound students).

**CONCLUSIONS:**

1. **Impact on teachers**
   - All department heads except the fine arts department head prefer the new schedule. They feel the longer 90-minute periods are beneficial both for completing lessons and pacing the curriculum and have increased collaboration among teachers.

2. **Impact on students**
   - Teachers generally feel that the schedule has produced students who spend more time on task and are achieving better. Some concern was voiced regarding (1) the impact of longer class periods on lower achieving students if teachers do not adapt their instructional methodology and (2) the impact of the compressed schedule for AP classes. They believe, however, that students are adjusting to the new schedule.
   - The schedule seems to have negatively impacted the music department although the art program has benefited from the new schedule. A plan which pairs music courses with social studies and vocational courses all year long will be implemented in the 1996-97 school year.

3. **Impact on the administration of the school**
   - Department heads agree that the climate of the school has improved as the schedule has contributed to a calmer, better disciplined student body. They are of the opinion that attendance is better and that student transfers have not produced the previously anticipated problems. Although concerns were expressed regarding a loss of a sense of community, the impact on extracurricular and cocurricular activities, and the need for an earlier school day, department heads feel that problems are being worked out along the way.

**RECOMMENDATIONS:**

1. Continue to explore alternative scheduling options for the AP program (e.g., allow two AP courses to share a single block period meeting every day or on alternate days all year long; see other alternatives, pages 58 and 59).

2. Continue to explore alternative scheduling options for the music program (e.g., offer all students the opportunity to take 3 block courses per term and 2 traditional single-period courses which meet all year, one of which could be a music course. Offering some yearlong courses with block courses would also facilitate the accommodation of transfer students from schools not on a 4 X 4 schedule; see other alternatives, page 58).

3. Incorporate more sections of academic classes traditionally selected by students of the music program to assure adequate enrollments in the program and to balance the teacher/student ratios among classes.

4. Explore opportunities for accommodating students who cannot participate in clubs which

meet after school because the students require bus transportation (e.g., create 80-minute classes periodically to allow for a 40-minute activity period).

5. Review the schedule to determine if the lunch periods can be lengthened to 30 minutes to allow more time for interaction within groups.

6. Assess the feasibility of starting school earlier each morning so that students who participate in extracurricular activities which require leaving school early miss a minimum amount of instructional time.

7. Expand the individual student advisement program to better assist students in charting sequences of courses which take advantage of the opportunities available in the 4 X 4 schedule (i.e., two math courses).

8. Increase parental awareness of the opportunities available in the 4 X 4 schedule to enable parents to assist students in scheduling appropriate courses (i.e., disseminate information through newsletters, workshops, and other channels of communication in the community).

9. Offer staff development opportunities which include strategies for engaging students for longer periods of time. Staff development should emphasize cooperative learning activities, should focus on the application phase of a lesson, and include training in transitioning from one type of lesson to another (see sample lesson plan, page 57). Establish faculty seminar groups that use thirty minutes of the planning bell periodically in order to collaborate on implementation/teaching strategies.

CHESAPEAKE PUBLIC SCHOOLS

# SUPPORTING DOCUMENTATION TO THE STUDY:

# SURVEY OF STUDENTS

## SURVEY OF STUDENTS

This section provides the results of the formal survey of a random sample of WBHS students and the related findings, conclusions, and recommendations.

## 4 X 4 BLOCK SCHEDULE EVALUATION
## SURVEY OF STUDENTS

**PURPOSE OF THE SURVEY:**

Three hundred **(300)** surveys were mailed in April 1996 to a random sample of WBHS students to determine the **impact of the 4 X 4 block schedule on students**. One hundred and three **(103)** surveys were received for a return rate of **34%**.

**PERFORMANCE CRITERIA FOR SUCCESS:**

1. At least 65% of freshmen, sophomores, and juniors had the opportunity to earn more than six credits.
2. At least 25% of students who had failed a course made up failed classes within the regular year.
3. At least 65% of students surveyed indicated they actively participated in learning activities more frequently.
4. At least 65% of students surveyed indicated they received more individual attention.
5. At least 65% of students surveyed indicated they prefer the 4 X 4 block schedule to the six-period day.
6. The schedule accommodated students in required courses, elective courses, extracurricular programs, advanced placement (AP) courses, special education programs, cooperative work programs, music programs, students with prolonged illnesses, and students who transferred.

**RESULTS OF THE SURVEY:** See Chart 6, page 67.

***FINDINGS: "Comments" sections of the findings relate to comments written on the survey.***

1. **Thirty-three percent** of respondents were **freshmen**; **twenty-five percent** were sophomores; **twenty-five percent** were **juniors**; **sixteen percent** were **seniors.**

2. **Ninety percent** of students (freshmen, sophomores, juniors, and seniors) surveyed had the **opportunity to earn more than six credits**; additionally, **fifty-two percent** had the **opportunity to take combinations of courses that would not have been possible** in the six-period schedule.

   **Comments** on the survey were largely positive as well. Students indicated that they can earn more credits (and earn them sooner) in their high school career.

**CHART 6**
**4 X 4 BLOCK SCHEDULE EVALUATION**
**STUDENT SURVEY RESULTS**

| | SURVEY QUESTIONS | SURVEY RESPONSES | | | | | |
|---|---|---|---|---|---|---|---|
| | | YES | NO | 4X4 HELPED | 4X4 HINDERED | 4X4 MADE NO DIFFERENCE | N/A |
| 1 | Class: Freshman 33% - Sophomore 25% - Junior 25% - Senior 16% | | | | | | |
| 2 | Did you have the opportunity to earn more than six credits this year? | 90% | 9% | | | | |
| 3 | Did you take combination of courses not possible in six-period schedule? | 52% | 47% | | | | |
| 4 | If you failed a class first semester, did you repeat the class second semester? | 3%<br>*15% | 17%<br>*85% | | | | 78%<br>- |
| 5 | Did your teachers provide a greater variety of learning activities in the 4x4 schedule? | 56% | 43% | | | | |
| 6 | Did you participate more frequently in a variety of learning activities in the 4x4 schedule than in the six-period schedule? | 53% | 46% | | | | |
| 7 | Did you receive more individual attention from your teachers in the 4x4 schedule? | 46% | 53% | | | | |
| 8 | With regard to required courses such as math, English, science, social studies, and physical education, did the 4x4 schedule | | | 44% | 22% | 32% | |
| 9 | With regard to elective courses such as fine arts, foreign language, and vocational education classes, did the 4x4 schedule | | | 50% | 26% | 23% | |
| 10 | With regard to extracurricular programs, did the 4x4 schedule | | | 20% | 30% | 47% | |
| 11 | If you were enrolled in advanced placement (AP) courses, did the 4x4 schedule | | | 4%<br>*24% | 9%<br>*53% | 4%<br>*23% | 81%<br>- |
| 12 | If you were enrolled in a special education program, did the 4x4 schedule | | | 4%<br>*57% | 2%<br>*29% | 1%<br>*14% | 91%<br>- |
| 13 | If you were enrolled in a cooperative work program, did the 4x4 schedule | | | 4%<br>*57% | 0%<br>*0% | 3%<br>*43% | 91%<br>- |
| 14 | If you were enrolled in band, chorus, or orchestra, did the 4x4 schedule | | | 9%<br>*36% | 14%<br>*56% | 2%<br>*8% | 74%<br>- |
| 15 | If you were absent for an extended period of time due to a prolonged illness this year, did the 4x4 schedule | | | 6%<br>*15% | 28%<br>*71% | 6%<br>*15% | 57%<br>- |
| 16 | Transfers: Another State 7% Another School Division 13%<br>Another Chesapeake School 27%<br>Courses Within Dept. At WBHS 53% | | | | | | 84%<br>- |
| 17 | If you transferred, did the 4x4 schedule | | | 8%<br>*50% | 5%<br>*31% | 3%<br>*19% | 78%<br>- |
| 18 | Do you prefer the 4x4 block schedule to the six-period schedule? | 64% | 30% | | | | |

*"Not Applicable" responses are not included in the analysis of data. The first percentage in each box includes all responses.
When percentages do not add to 100%, the survey responses were incomplete.





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3. **Fifteen percent** of the students in the sample surveyed who had failed a course **made up the failed class within the regular year** (school records show that the actual number is 34%).

4. **Fifty-six percent** of the students surveyed said **teachers provided greater learning activities** in the new schedule; **fifty-three percent** said they **actively participated in learning activities more frequently**.

   Students **commented** that teachers are not making the best use of class time, that classes are held in the same manner as before, and that teachers are doing too much lecturing instead of introducing interesting activities.

5. **Forty-six percent** of the students surveyed said they **received more individual attention from teachers** in the new schedule.

   Although two students **commented** that there is time for more individual attention in the new schedule, others commented that teachers are so occupied trying to get through the course work that there is not as much one-on-one help. Another student said some classes are large, limiting opportunities for individual attention.

6. **Sixty-four percent** of the students surveyed said they **prefer the new schedule** to the six-period day.

   Also, two-thirds of the students **commenting** said they prefer the 4 X 4 block schedule. Students commented frequently on the longer class periods. Although several said they like having more time in each class, more students (including some who said they prefer the new schedule overall) indicated that 90 minutes in one class is too long.

7. **Seventy-six percent** of the students surveyed said the **new schedule helped or made no difference** regarding **required courses.**

   Students who **commented** said that the 4 x 4 schedule allows them to get ahead or take more courses, including advanced placement courses. However, students indicated that teachers do not cover the amount of material that would have been taught in a full year, that some beneficial activities had to be eliminated due to time constraints, and that most students need longer than 18 weeks to complete tough courses with good grades.

8. **Seventy-three percent** of the students surveyed said the new schedule **helped or made no difference** regarding **elective courses.**

   Students **commenting** were pleased with the opportunity to take more electives.

9. **Sixty-seven percent** of the students surveyed said the new schedule **helped or made no difference** regarding **extracurricular programs**.

Students who **commented** said that participating in extracurricular programs has been more difficult in the 4 X 4 schedule. Some said the workload leaves no time for sports and clubs or that grades went down if they continued the activities. Others commented that the inability of clubs to meet during the regular day (they previously met at times during the longer ten-minute breaks) has eliminated participation by students who ride buses or play sports. In addition, students who participate in sports and must leave class early miss more work in the compressed courses. One student commented, however, that with less homework due to taking only four courses each term there is more time for extracurricular activities.

10. ***Items 10 - 14 of these findings contained a "not applicable" response choice on the survey. Percentages are based on responses of students for whom the items were applicable and in some cases represent a small sample of students.***

**Forty-seven percent** of the students said the new schedule **helped or made no difference** regarding **advanced placement (AP) courses**.

Student **comments** indicate concern over the fact that they were taking AP courses during the first term but would not be tested until spring.

Students indicated that because they had to compress the information into one semester teachers struggled to meet the requirements of the AP syllabus, covering the material quickly. Students also expressed concern over not being able to complete everything during second term since that term traditionally gets shortened because of the holiday period, snow days, and the May test date (see Appendix 2, page 104, for 1996 Advanced Placement scores).

11. **Seventy-one percent** of the students said the new schedule **helped or made no difference** regarding **special education programs**.

A student with limited vision **commented**, however, that he/she finds it even more difficult to keep up because of the faster pace.

12. **One hundred percent** of the students said the new schedule **helped or made no difference** regarding **cooperative work programs**.

13. **Forty-four percent** of the students surveyed said the new schedule **helped or made no difference** regarding **band, chorus, or orchestra**.

Students **commented** that the music program has had a decline in enrollment. Students who had been in the chorus found they could not continue in the music program due largely to scheduling conflicts.

14. **Thirty percent** of the students said the new schedule **helped or made no difference**

regarding **absences for an extended period of time due to a prolonged illness**.

Students generally complained in their **comments** that the new schedule makes it difficult to make up work after any absence.

15. **Sixty-nine percent** of the students said the new schedule **helped or made no difference** regarding **transfers**.

Students also offered **comments** regarding the **effects of the schedule** on the following:

**Workload/Pace**

Although a few students commented that the workload was about the same and that having only four courses a term decreased the workload, a number of students complained of having difficulty keeping up with the rapid pace, that homework doubled, and that they had at least one test every day.

**Grades/Achievement**

Comments were divided regarding the effects of the schedule on achievement. Students who indicated their grades had dropped cited the attendance policy, the fast pace of 4 x 4, and a heavy workload because they refused to balance their schedules with easier courses. Students who saw an improvement in grades indicated that having only four classes on which to concentrate had contributed to their success.

**Courses with Laboratory Requirements**

While students indicated that longer class periods provided more time for extra activities, they also indicated that the shorter length of courses resulted in completion of fewer labs.

**School Climate**

Students who commented were concerned largely with the fact that breaks and lunch periods are too short to allow interaction among students and with teachers and administrators. Some complained that they see less of their friends, can no longer make their own schedules or choose their teachers, and have experienced a lot of stress due to heavy workloads since the new schedule was implemented. A few students expressed the desire for an earlier day to provide more free time for extracurricular activities in the afternoon.

**CONCLUSIONS**:

1. Survey responses indicate that the new schedule offers the majority of students the opportunity to earn more than six credits. With ninety percent of students responding that they had the opportunity to earn more than six credits, the **first performance criterion for success was met**.

2. A small percentage of students responding to this survey were able to make up failed classes

during the regular year; therefore, the **second performance criterion for success was not met**. School records show that the actual number was **thirty-four percent**.

3. Only about half the students said they participated more frequently in learning activities. This percentage **did not meet the performance criterion for success**.

4. Less than half of the students said they received more individual attention, **which did not meet the performance criterion for success**. Comments indicate that adjustment to the new schedule in this first year may have limited the time teachers had to devote to individual students.

5. The percentage of students indicating preference for the 4 X 4 schedule **meets the performance criterion for success**. Comments of students also were generally favorable regarding the new schedule.

6. Responses indicate that students in required courses, elective courses, extracurricular programs, special education programs, cooperative work programs, and students who transferred were adequately accommodated in the new schedule, **meeting the performance criteria for success for these regular and special programs**.

7. Responses indicate that students in advanced placement (AP) courses, the music program, and students who were absent for an extended period of time due to a prolonged illness were not adequately accommodated, and **the performance criterion for success for these groups was not met**. Based on comments of students in AP classes, there was not enough time to cover the AP syllabus and students were concerned about retaining information over the second term until they took AP exams in the spring. Students dropped out of band, chorus, and orchestra when scheduling conflicts forced them to choose. Students in general have found it difficult to make up work after absences.

8. Comments from students regarding the effects of the new schedule on their **workload**, **achievement**, and the overall **climate of the school** suggest that the schedule has resulted in a greater focus on academics and less socialization among students.

**RECOMMENDATIONS:**

1. Plan for the use of more advanced technology in scheduling, and use the data for staffing to achieve a better balance in the number of students among classes.

2. To the extent possible, schedule adequate sections of academic courses and "popular" elective courses

   - to allow students to retake a course the semester following a failure
   - to balance teacher/student ratios within staffing guidelines among classes

- to ensure that additional electives selected are consistent with the educational goals of students rather than a mere accumulation of credits

3. Offer additional staff development activities which assist teachers in preparing three-part lessons which balance explanation, application, and synthesis in order to engage all levels of students in the longer class periods (see sample lesson plan, page 57). Establish faculty seminar groups that use thirty minutes of the planning bell periodically in order to collaborate on implementation/teaching strategies.

4. Increase the individual advisement component of the counseling program to assist students in understanding the opportunities available in the new schedule (i.e., taking combinations of courses not possible in the six-period schedule).

   Individual and group counseling sessions should address (1) balancing student workloads to reduce stress in the faster pace of the schedule (i.e., prepare preliminary schedules in February to ensure a balance of high- and low-homework classes), (2) balancing curricular and extracurricular activities, (3) effective use of the extended day program for absences, and (4) scheduling classes to minimize conflicts between the music program and AP program and other required or preferred courses.

5. Assess the feasibility of an earlier and longer school day to allow time in the afternoon for participation in cocurricular and extracurricular activities and to add minutes to lunch periods and the morning break.

6. Explore the possibility of offering eighty-minute classes periodically to provide forty minutes of an activity period.

7. Offer alternative scheduling options for the music and AP programs (see alternatives, pages 58 and 59).

8. Explore coordinating the services of the instructional lab and the extended day program to assist transfer students and students with extended absences who are not eligible for homebound instruction.

CHESAPEAKE PUBLIC SCHOOLS

# SUPPORTING DOCUMENTATION TO THE STUDY:

# INTERVIEWS WITH STUDENTS

## INTERVIEWS WITH STUDENTS

This section provides the results of structured interviews with a random sample of students and the related findings, conclusions, and recommendations.

## 4 X 4 BLOCK SCHEDULE EVALUATION
## INTERVIEWS WITH STUDENTS

**PURPOSE OF THE INTERVIEWS**: On May 20, 1996, interviews were conducted to determine the impact of the 4 X 4 block schedule on students. Students were randomly selected from a sample of 30 classes (i.e., English 9, Honors Government, AP Calculus, Spanish 2, PE, Keyboarding, Advanced Chorus, Reading 9-12) to offer their views on the schedule. Ten groups comprised of three to five students from several classes (a total of 32 students) were interviewed. Specific questions were asked, but students were allowed to comment on any aspect of the schedule and also were given the opportunity to offer other comments and make suggestions regarding the schedule.

**PERFORMANCE CRITERION FOR SUCCESS:** A positive impact of the schedule on students

**RESULTS OF THE INTERVIEWS**: See Appendix 3, Summary of Interviews, page 105.

**FINDINGS**:

1. **HAVE YOU NOTICED A DIFFERENCE IN THE WAY TEACHERS TEACH SINCE CHANGING TO THE 4 X 4 SCHEDULE?**

- Although several students indicated their teachers have adapted their teaching techniques to the longer class periods, many indicated that teachers are lecturing, that they are just doing the same thing but for a longer period of time at a faster pace, and that they waste time in start up and shut down in order to shorten the instructional time.
- Several students commented that 30 minutes or so at the end of the period is set aside for doing homework. Although some students viewed this as a way for the teacher to shorten instructional time, others viewed it as an opportunity for independent practice but with the option of receiving assistance from the teacher if needed.

2. **HAVE YOU RECEIVED MORE INDIVIDUAL ATTENTION FROM YOUR TEACHERS SINCE CHANGING TO 4 X 4?**

- Most of the students interviewed said that they are receiving more individual attention from teachers.

3. **DO YOU THINK THE LONGER 90-MINUTE PERIODS ARE AN IMPROVEMENT OVER THE 55-MINUTE PERIODS?**

- Most of the students said they prefer the shorter 55-minute period classes.

4. **HAVE YOU NOTED ANY CHANGE IN YOUR WORKLOAD OR CHANGE IN PACE OVERALL?**

- About the same number of students said there has been no increase in the workload as said the workload has increased.

- Students whose workloads have not increased indicated for the most part that they are given the opportunity to complete homework in class.

**5. HAVE YOU BEEN ABLE TO TAKE MORE ELECTIVES?**

- In general students said they like the idea of taking more courses but that in reality because of the limited number of sections of courses offered they have had difficulty scheduling the classes they want (i.e., honors and AP classes were offered at the same time as band, orchestra, and chorus, and students generally chose the honors and AP classes). Limited sections also have resulted in increased class size in certain courses.

**6. HAS THERE BEEN ANY DIFFERENCE IN YOUR GRADES OR ACHIEVEMENT IN GENERAL?**

- Approximately 75% of the students who commented said their grades had improved. Several said they had an adjustment period during the first term after which their grades went up.

**7. DO YOU HAVE ANY COMMENTS REGARDING WORK/STUDY, AP COURSES, BAND/ORCHESTRA/CHORUS, OR LABORATORY COURSES?**

- Only a few students offered additional comments. Work/study students indicated that they like getting out earlier to go to work. Band/Orchestra/Chorus students echoed the concerns expressed by other groups that the music program does not fit well in the 4 X 4 schedule. AP students reiterated earlier concerns about the time interval between first semester AP courses and the exams and the fact that second semester AP courses were too short.

**8. HAS THE NEW SCHEDULE AFFECTED YOUR EXTRACURRICULAR AND COCURRICULAR INVOLVEMENT?**

- Students had few comments. Those participating in sports indicated they have to miss a lot of time from school. Students have always had to leave early for "away" games, but with a longer school day they miss even more time and with compressed courses they miss even more material. An unintended effect of the new schedule, however, is that not as many students are being cut from teams because of failures.

**9. HAVE YOU OR DO YOU KNOW ANY STUDENTS WHO HAVE TRANSFERRED? HOW DID THE 4 X 4 SCHEDULE AFFECT THE TRANSFER?**

- Students offered very little information on transfers. The one student who had transferred commented that he was very pleased because he had gained credits. He was able to complete the six courses he had begun in his former school and took two more in the 4 X 4 schedule. As a result, he is very happy with the schedule.

**10. WHAT DO YOUR PARENTS THINK OF THE NEW SCHEDULE?**

- Comments of students indicated that about half of their parents like the schedule and about half either do not like it or are unsure about it.

**11. HAS THE NEW SCHEDULE AFFECTED THE OVERALL CLIMATE OF THE SCHOOL (DISCIPLINE, ACTIVITY IN THE HALLS, ATTENDANCE/ABSENCES)?**

- A few students commented that there have been fewer fights, that teachers are less permissive regarding cuts, and that attendance is better, but about equal numbers said the climate seemed about the same, that there are too many rules, and that they do not see people as much.

**12. SHOULD SCHOOL BEGIN EARLIER?**

- Most of the comments favored starting earlier or having additional classes early in the morning. Students who take four classes are in school until 3:30 p.m. The zero-bell, early morning class in the six-period schedule offered students the opportunity to take extra classes or to get out of school early.

**13. WOULD YOU LIKE TO CONTINUE THE 4 X 4 SCHEDULE, RETURN TO THE ALTERNATING SCHEDULE, OR RETURN TO THE SIX-PERIOD SCHEDULE?**

- Nineteen students responding to this question said they would prefer the 4 X 4 schedule (about four of these were juniors who said they were not that happy with the schedule but that they would not like to see it changed in their senior year).
- Nine students said they would prefer the six-period schedule.
- Two students said they would prefer the alternating schedule.
- One student was unsure.

**14. DO YOU HAVE ANY OTHER COMMENTS OR SUGGESTIONS FOR IMPROVEMENT REGARDING THE NEW SCHEDULE?**

- Most of the students did not have additional comments. They commented on the following: dissatisfaction with the length of the lunch period (25 minutes and 5 minutes of passing time) which with an increased student population and less time between classes becomes effectively shorter; a desire for some yearlong classes; concern that foreign languages can be completed so early in the high school career; and a desire for an earlier school day to allow time for other activities in the afternoon.

**CONCLUSIONS:**

1. It appears that many teachers have not changed instructional methods and that the methodology includes lecturing for a significant amount of the class period. This factor has resulted in students losing interest either because they are bored or because they are having

difficulty absorbing a greater amount of material. Students from classes in which the teachers have adapted their teaching methodology to the new time frame are enthusiastic about this aspect of 4 X 4 (e.g., one student has enjoyed her English class because the teacher has used a variety of interesting activities including the Paideia Seminar which is a group discussion technique).

Fairly large segments of class time are devoted to working on homework assignments. This factor may account for improved grades among the students interviewed.

2. The longer class periods provide the opportunity for teachers to interact more frequently on a one-on-one basis with students.

3. Paradoxically, students appear to appreciate receiving more individual attention, having more time to understand the material and ask questions, and having the chance to complete homework, yet they still prefer being in class for only 55 minutes. Since a number of students said the longer classes were boring, their preference for the old schedule may be due to the fact that teachers are not utilizing a variety of activities to engage all levels of students.

4. Heavy workloads appear to be specific to certain classes and in particular the AP classes and honors classes. Students in those courses experienced overload. It appears to be important for students to take a mix of high- and low-homework courses to prevent overloading, but limited sections of classes have prevented them from doing so. When the courseload is appropriate, students have found taking four subjects reduces their workload from that in the six-period schedule.

5. Students do not feel that the ability to take more electives has been advantageous. Limited sections of classes have forced some to drop out of the music program or to forego desired honors and AP classes to participate in the music program. Limited sections of AP classes have been offered in the same time slot prohibiting students from taking more of these. Also, students do not see this aspect of 4 X 4 as an advantage since they could gain extra credits in the old schedule by taking "zero bell" classes. Students would like the opportunity to take more AP classes because they and their parents know that savings in college expenses can be realized, but they have very specific needs with limited choices. Unless the additional electives fit into their career goals, this aspect of 4 X 4 is not attractive to them.

6. The grades of this sample of students have improved. The 4 X 4 schedule seems to have produced a greater focus on academics as chances for socialization have diminished. In addition, students have been absent less often and seem generally to be more engaged in learning. Longer class periods have given students the chance to confer with teachers individually and to receive help as they begin their homework assignments.

7. The main benefit to work/study students is that they can get to their jobs early enough in the day to have a significant amount of time on the job.

8. Students seem convinced that the new schedule adversely affected the AP program. With regard to the 14 fall AP courses, scores in 5 were down, scores in 4 were up, and scores in 5 courses remained about the same as the previous year. Of the 4 spring AP courses, scores of 2 were down, 1 was up, and 1 remained the same. Scores in the two social studies courses were down. Scores in the art course were up. Scores in two science courses were down, and scores in three remained the same. Scores in one computer science course were up, and one remained the same. Scores in the one English course were up. Scores in one foreign language course were down, but up in three other courses. Scores in the two math courses were down.

9. Based on the perspective of these students, the music program possibly would not have suffered the loss of as many students if there had been more sections of academic courses available to students. Honors students generally enroll in the music program and given the choice of taking band/chorus/orchestra or an honors or AP class, they usually chose the latter. In addition, teachers in the music program preferred that students enroll for both terms, but students were reluctant to commit two of their eight credits to music. Students who enrolled for the second term had to be integrated into the band, chorus, or orchestra. The longer class periods do not seem to be a great advantage to the music program given the other drawbacks.

10. If this sample of students is representative, there was little effect on extracurricular and cocurricular activities.

11. In this sample, transfers into the 4 X 4 schedule from other types of schedules were not a problem.

12. According to the students, parents seem to be evenly divided between those who prefer 4 X 4 and those who prefer the traditional schedule or are unsure as to their preference.

13. Students do not feel that the new schedule has substantially changed the climate of the school. They feel increased security has been the major reason for a better disciplined student body.

14. Students generally favor starting school earlier or offering early morning courses in order to leave school earlier in the afternoon.

15. Despite negative comments regarding the new schedule, students would not favor returning to the alternating block or 6-period schedule.

16. Students would prefer yearlong AP courses, possible restrictions on foreign language scheduling, and early morning classes.

**RECOMMENDATIONS:**

1. Offer staff development activities to assist teachers in
   - planning activities to engage all levels of students in the longer class periods
   - incorporating appropriate homework activities in the class period which alleviate student workloads and provide students with assistance during independent practice but which do not significantly decrease instructional time
   - transitioning during class periods (especially alternating explanation and application activities)

2. Continue to explore alternative scheduling options for the AP program (e.g., pair two AP courses which would operate as single courses every day; see other alternatives, pages 58 and 59).

3. Continue to explore alternative scheduling options which will result in adequate enrollments in the music program. For example, require enrollment one semester with the second semester as an elective and give classes offered each semester different names (e.g., Marching Band in the fall and Symphonic Band in the spring; see other alternatives, page 58).

4. Incorporate more sections of academic classes in the schedule to help ensure adequate enrollments in the music program, to increase the AP options of students, and to balance the teacher/student ratios among classes.

5. Assess the feasibility of starting school earlier so that students get out earlier. An earlier school day would benefit students who participate in extracurricular activities in that they would miss less instructional time on the days they must leave school early. If beginning school earlier is an option, investigate the feasibility of adding ten minutes to the school day. This change could add five minutes to the passing time between classes and increase the lunch period by five minutes.

6. Counsel students to schedule classes that achieve a balance of low- and heavy-homework courses. Code classes as either high- or low-homework in the student scheduling system. Run preliminary schedules in February. Use the guidance advisement process to adjust schedules if students have selected an imbalance of classes which require significant homework, projects, and tests.

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# SUPPORTING DOCUMENTATION TO THE STUDY:

# SURVEY OF PARENTS

## SURVEY OF PARENTS

This section provides the results of the formal survey of a random sample of WBHS parents and the related findings, conclusions, and recommendations.

## 4 X 4 BLOCK SCHEDULE EVALUATION
## SURVEY OF PARENTS

**PURPOSE OF THE SURVEY:**
Three hundred (**300**) surveys were mailed in April 1996 to a random sample of WBHS parents to obtain their perspective on the **impact of the 4 X 4 block schedule on students**. One hundred and nineteen (**119**) surveys were received for a return rate of **40%**.

**PERFORMANCE CRITERIA FOR SUCCESS:**
1. The schedule accommodated students in required courses, elective courses, extracurricular programs, advanced placement (AP) courses, special education programs, cooperative work programs, music programs, students with prolonged illnesses, and students who transferred.
2. At least 65% of parents surveyed indicated they prefer the 4 X 4 block schedule.

**RESULTS OF THE SURVEY**: See Chart 7, page 82.

**FINDINGS:**

***A number of the items on the survey contained a "not applicable" response. Percentages presented are based on responses of parents to whom the survey applied and in some cases represent a small sample of respondents. "Comments" sections of the findings relate to comments written on the survey.***

1. **Thirty-two percent** of respondents were parents of freshmen; **twenty-six percent** were parents of sophomores; **twenty-two percent** were parents of juniors; **ten percent** were parents of seniors

2. **Seventy-six percent** of parents surveyed said the new schedule **helped or made no difference** with regard to required courses.

   **COMMENTS:**
   Parents who commented voiced concerns about (1) scheduling conflicts which resulted because students were taking only four courses a term, (2) student retention of material when a course is completed during the first term and the next sequence is not taken until the following year, (3) student retention of material when the curriculum is compressed into one term, (4) inability of students to retake a failed class the following semester because classes were full or not offered, and (5) physical education classes lasting only half the year and all requirements being completed early in the high school career.

3. **Seventy-five percent** of parents surveyed said the new schedule **helped or made no difference** with regard to **elective courses.**

**CHART 7**
**4 X 4 BLOCK SCHEDULE EVALUATION**
**PARENT SURVEY RESULTS**

| SURVEY QUESTIONS | | SURVEY RESPONSES | | | | | |
|---|---|---|---|---|---|---|---|
| | | YES | NO | 4X4 HELPED | 4X4 HINDERED | 4X4 MADE NO DIFFERENCE | N/A |
| 1. | Child's Class: Freshman 32% - Sophomore 26% - Junior 22% - Senior 10% | | | | | | |
| 2. | With regard to required courses such as math, English, science, social studies, and physical education, did the 4x4 schedule | | | 48% | 18% | 28% | |
| 3. | With regard to elective courses such as fine arts, foreign language, and vocational education classes, did the 4x4 schedule | | | 41% | 20% | 34% | |
| 4. | With regard to extracurricular programs, did the 4x4 schedule | | | 18% | 20% | 54% | |
| 5. | If your child was enrolled in advanced placement (AP) courses, did the 4x4 schedule | | | 8%<br>*35% | 12%<br>*48% | 4%<br>*17% | 70%<br>- |
| 6. | If your child was enrolled in a special education program, did the 4x4 schedule | | | 1%<br>*10% | 4%<br>*45% | 4%<br>*45% | 85%<br>- |
| 7. | If your child was enrolled in a cooperative work program, did the 4x4 schedule | | | 3%<br>*43% | 1%<br>*14% | 3%<br>*43% | 88%<br>- |
| 8. | If your child was enrolled in band, chorus, or orchestra, did the 4x4 schedule | | | 4%<br>*21% | 10%<br>*50% | 6%<br>*29% | 74%<br>- |
| 9. | If your child was absent for an extended period of time due to a prolonged illness this year, did the 4x4 schedule | | | 1%<br>*3% | 19%<br>*68% | 8%<br>*29% | 68%<br>- |
| 10. | Did your child transfer this year. From another state 15%<br>From another school division 9% - From another Chesapeake school 21%<br>Courses within departments at WBHS 56% | | | | | | 68%<br>- |
| 11. | If your child transferred, did the 4x4 schedule | | | 6%<br>*39% | 7%<br>*44% | 3%<br>*17% | 76%<br>- |
| 12. | Do you prefer the 4x4 block schedule to the six-period schedule for your child? | 63% | 29% | | | | |

*Not Applicable" responses are not included in the analysis of data. The first percentage in each box includes all responses.
When percentages do not add to 100%, the survey responses were incomplete.





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**COMMENTS:**
Parents who commented said that the new schedule gives students the opportunity to take more courses but indicated a need for more variety in the electives offered. Parents expressed similar concerns with elective courses as with required courses regarding retention of material.

4. **Seventy-two percent** of parents surveyed said the new schedule **helped or made no difference** with regard to **extracurricular programs.**

**COMMENTS:**
Parents who commented said that the new schedule made participation in extracurricular activities more difficult because of the increased workload. However, one parent indicated his son has been able to participate in sports for the first time because of having less homework and better grades.

5. **Fifty-two percent** of parents surveyed said the new schedule **helped or made no difference** with regard to **advanced placement (AP) courses.**

**COMMENTS:**
Parents who commented generally expressed the following concerns: (1) whether students would retain information from first-term courses until AP testing in the spring, (2) whether the AP curriculum can be covered adequately in one term, especially in the second term which is shortened with holidays and inclement weather, (3) the fact that scheduling conflicts prohibited students from participating in both the music program and the AP program. However, at least one parent commented that the new schedule would allow his daughter to take more AP courses.

6. **Fifty-five percent** of parents surveyed said the new schedule **helped or made no difference** with regard to the **special education program.**

7. **Eighty-six percent** of parents surveyed said the new schedule **helped or made no difference** with regard to the **cooperative work program.**

8. **Fifty percent** of parents surveyed said the new schedule **helped or made no difference** with regard to **the music program.**

**COMMENTS:**
Parents who commented were concerned that students who participated in band, chorus, or orchestra, were devoting one-fourth of the schedule to the music program instead of taking courses necessary for college.

9. **Thirty-two percent** of parents surveyed said the new schedule **helped or made no difference** with regard to **absences for an extended period of time due to a prolonged illness.**

**COMMENTS:**
Parents who commented were mainly concerned that students have significantly more work to make up after an absence because so much more material is covered in one day. Some parents are dissatisfied with the limit of nine days per year for absences.

10. **Fifty-six percent** of parents surveyed said the new schedule **helped or made no difference** with regard to **transfers.**

**COMMENTS:**
One parent noted that he postponed moving from the area because transferring would have resulted in a loss of credits and a delay in graduation.

11. **Sixty-three percent** of parents surveyed said they **prefer the 4 X 4 block schedule.**

**COMMENTS:**
The majority of parents who commented also said they **prefer** the 4 X 4 schedule. Reasons for preferring the schedule included the following: (1) fewer courses for the student to deal with each term, (2) more individual attention from teachers during the class, (3) a schedule which more closely approximates a college schedule, and (4) more course options.

The minority of parents who prefer the **six-period schedule** mentioned the following: (1) 4 x 4 requires learning too much in a short period of time, (2) the curriculum was rushed, condensed, or not taught (3) parents fear their student would fail because of an extended illness.

Some parents also commented regarding the following:

**Workload/Pace**
Comments of parents were almost evenly divided regarding student workloads. Many said students have performed better with only four subjects to concentrate on in a semester and that although students are working at a faster pace they are more focused and challenged. Other parents said their students have had a difficult time in the faster pace and expressed concern that important parts of the curriculum were rushed over or not taught at all.

**Longer Class Periods**
Parents expressed concern that teachers have not changed their teaching methods in the longer class periods and devote large portions of the class period to homework. A number of parents said their students have complained of boredom in the long classes.

Other parents expressed pleasure that more material is being covered and that teachers have more time to provide individual attention.

**School Climate**

A number of parents who commented said students seem to be experiencing less stress due to taking only four classes each term. Some parents also said that there are fewer discipline problems due to students spending less time in crowded halls.

Other parents, however, voiced concern about larger enrollments in some classes, the fact that students were placed in other classes without prior notification to student or parent, and a lack of individual attention. They also complained of short breaks and short lunch periods and less time before and after school for quick conferences with teachers or visits to the office.

**Earlier School Day**

A number of parents expressed their desire for an earlier school day to allow students more time in the afternoon for other activities.

**Achievement**

The majority of parents commenting said grades of students had improved.

**CONCLUSIONS**:

1. The majority of parents prefer the 4 X 4 block schedule, **satisfying the performance criterion for success related to this survey item**.

2. The majority of parents are satisfied with the 4 X 4 schedule in handling required courses. Parents, however, would like to see more options to resolve scheduling conflicts, to allow students to retake courses in a subsequent semester, and to create a better balance of courses over the entire high school career.

3. The majority of parents are satisfied with the 4 X 4 schedule in handling electives. As with required courses, they would appreciate more options to allow students to optimize the opportunity 4 X 4 presents to take more courses.

4. The majority of parents are satisfied with the 4 X 4 schedule in regard to extracurricular activities. Some parents indicated, however, that the increased workload has made balancing curricular and extracurricular programs more challenging.

5. Parents are evenly divided in their opinions regarding the advanced placement program.
   - One concern is that although the schedule offers students the opportunity to access more advanced placement courses, scheduling conflicts with the music program and other AP courses have negated this advantage.
   - In addition, because the AP course curriculums are rigorous, parents question

whether material should be compressed into one term and whether information can be retained over an intervening term before tests are administered.

6. Parents are evenly divided in their opinions regarding the special education program.

7. Parents are very supportive of the 4 X 4 schedule in regard to the cooperative work program.

8. Parents are evenly divided in their opinions of the music program. Most parents indicated a desire for their students to participate in band, chorus, and orchestra, but they encouraged their students to take courses necessary for college when scheduling conflicts arose.

9. The majority of parents are of the opinion that students with absences for an extended period of time due to a prolonged illness are a problem in the new schedule.

10. Parents are evenly divided in their opinions regarding the difficulty posed by student transfers.

11. Parental concerns regarding workload center largely around the advanced placement program. For the most part, parents have noticed less stress and a greater focus as students deal with fewer courses per term.

12. Parents are concerned that some teachers have not changed their teaching methods to engage students more fully in the longer class periods. Parents are of the opinion that teachers who have adapted their plans to the new schedule have been able to provide more individual attention while teaching the curriculum.

13. Parents appreciate the reduction in discipline problems. Parents are concerned with the higher enrollments in some classes and the fact that lunch periods and the time between classes are too short.

14. Parents prefer an earlier school day to allow students time to participate in more activities in the afternoon.

15. The majority of parents are of the opinion that grades have improved in the new schedule.

**RECOMMENDATIONS**:

1. Review the schedule to determine if more sections of some required courses and a greater variety of elective courses can be offered (1) to alleviate scheduling conflicts for students who wish to participate in the music program, (2) to allow students to retake failed courses in the subsequent term, (3) to allow students to achieve a better balance of courses taken over their high school careers, and (4) to alleviate the overcrowding which has been experienced in some required courses.

2. Provide more individual counseling in preparing schedules. Code classes as either high- or

low-homework in the student scheduling system; run preliminary schedules in February which can be adjusted in May if necessary.

3. Continue to explore scheduling alternatives for the music and the AP programs (e.g., make music and AP courses yearlong, pairing them with other yearlong courses that students of the music and AP programs traditionally select; see other alternatives, pages 58 and 59).

4. Explore ways to assist students who are absent for prolonged periods of time because of illness.

5. Explore ways to expand the services of the instructional lab to better accommodate students who transfer.

6. Assess the feasibility of beginning school earlier and lengthening the school day by adding minutes in the morning to address parental concerns that students do not have enough time in the afternoon for activities and that lunch periods and the time between classes are too short.

7. Provide staff development which will assist teachers in adapting instructional methodology to the longer class periods in order to engage all levels of students.

8. Convene parents of student groups where a substantial number of parents have expressed concern (e.g., music students) in order to seek workable scheduling options.

CHESAPEAKE PUBLIC SCHOOLS

# SUPPORTING DOCUMENTATION TO THE STUDY:

# SURVEY OF SECONDARY GUIDANCE DIRECTORS

## SURVEY OF SECONDARY GUIDANCE DIRECTORS

This section provides the results of the formal survey of all directors of guidance on the secondary level in the school division regarding students who transfer from schools with the 4 X 4 schedule and the related findings, conclusions, and recommendations.

## 4 X 4 BLOCK SCHEDULE EVALUATION
## SURVEY OF SECONDARY GUIDANCE DIRECTORS

**PURPOSE OF THE SURVEY:**
Surveys were sent in May 1996 to secondary guidance directors at all high schools to determine the impact on students who transferred from a school using the 4 X 4 block schedule to a school using another type of schedule during the 1995-96 school year. Guidance directors from all high schools (Deep Creek, Great Bridge, Western Branch, Oscar Smith, Indian River, and the Chesapeake Alternative School) responded.

**CRITERION FOR SUCCESS:**
Transfer students were accommodated when they transferred from a school using the 4 X 4 block schedule to a school using another type of schedule.

**RESULTS OF THE SURVEY:** See Chart 8, pages 90 and 91.

**FINDINGS:**

1. Guidance directors responded that **1,266** transfers were processed in the high schools in Chesapeake in the 1995-96 school year. **Seventy-three** transfers were from schools with a 4 X 4 block schedule (6%); **39** of the 4 X 4 transfers were easily accommodated (53 %), and **34** were difficult to accommodate (47%).

2. **Four** schools used a **traditional six-period schedule** (Chesapeake Alternative, Deep Creek, Indian River, and Oscar Smith).
   - **788** transfers were processed, and **38** were from schools using the 4 X 4 block schedule (5%); **15** were easily accommodated (39%), and **23** were difficult to accommodate (61%) .

3. **One** school used a modified **alternating block schedule** (Great Bridge).
   - **Total number of transfers processed** was **214**.
   - **Number** of transfers from a **4 X 4 block schedule** was 6; **5** were **easily** accommodated (83 %); **1** was **difficult** to accommodate (17%).

4. **One** school used the **4 X 4 block schedule** (Western Branch).
   - Total number of **transfers** processed was 264.
   - **29** transfers were from schools using the **4 X 4 block schedule (11%)**.
   - **19 were easily accommodated (66%) and 10 were difficult to accommodate (34%)**.

**CONCLUSIONS:**

1. The high schools in Chesapeake processed a small percentage of transfers from 4 X 4 block schedules. Over half the transfer students from 4 X 4 schedules were easily accommodated but usually with electives or semester-long required courses and on an individual basis.

## Chart 8
## 4 x 4 Block Schedule Evaluation
## Impact on Transfer Students

| School | Type of Schedule | # of Transfers Processed 95/96 | # of Transfers with 4x4 Block Schedule | Type of Accommodation | Comments |
|---|---|---|---|---|---|
| Chesapeake Alternative | Traditional | | | Difficult | The present goal of Chesapeake Alternative School (CAS) is to serve students only temporarily during a school year. When a student demonstrates improvement in behavior, he/she returns to the traditional school setting. |
| Deep Creek High | Traditional | 168 | 20 | (5) Easily Accommodated<br><br>(15) Difficult to Accommodate | Two girls who entered from Western Branch High School (in the late spring) were not that difficult to place. One other student enrolled in February and had not been in English 9 at all. Since it is a year-long class, we could not enroll her in the course. She will have to attend summer school in order to be promoted.<br><br>Next year, all of Portsmouth City will be on the 4x4. We receive a large number of transfers from Portsmouth. This is going to be a difficult situation for us to handle. We will need direction and help from central office in determining placement. |
| Great Bridge High | Alternating Block Schedule | 214 | 6 | (5) Easily Accommodated<br><br>(1) Difficult to Accommodate | If a student enrolled in the middle of the fourth nine-weeks, he/she would not be able to schedule for 316 (U.S. History I) or 327 (U.S. Govt. I). That could be a problem for graduation.<br><br>Instead of enrolling in "academic" year-long courses, students have to choose from a variety of semester electives.<br><br>Students are unable to complete our year-long courses (foreign lang., science, etc.) when they enroll in the middle of the year.<br><br>Our semester English program allowed students to enroll in two English classes second semester. |

06



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| School | Type of Schedule | # of Transfers Processed 95/96 | # of Transfers with 4x4 Block Schedule | Type of Accommodation | Comments |
|---|---|---|---|---|---|
| Indian River High School | Traditional | 191 Opening of School<br><br>129 During the school year | 10 | Easily accommodated, but not necessarily with academic classes | Luckily, because our English classes are semester classes, we were able to use a literature class and a writing course to make up this credit. However, as our English classes will be changing to year-long classes in the future, we will not be able to do this pairing.<br><br>Transfer students in math and science classes for the 2nd block semester ended up losing these classes.<br><br>Most of the transfer students had to be scheduled in semester classes with a large number being electives.<br><br>A transfer student enrolled and had a 1 credit block world history class in his former school. He was able to enroll in our world history; however, he only received ½ credit and will have to make up the other ½ credit. The same situation would be true for geography, U.S. History, and physical education.<br><br>A transfer student enrolled and had a 1 credit block government during the second semester. Because we teach one first semester government class during the second semester as well as the regular second semester government class, we were able to still give this student a full credit in government.<br><br>Two transfer students had previously completed a block credit in band and orchestra. In order for these students to continue in the music class, they had to forfeit the original credit in order to receive a credit in our class. |
| Oscar Smith High School | Traditional | 300 | 8 | (8) Difficult to accommodate | No Comments |
| Western Branch High School | 4x4 Block Scheduling | 264 | 29 | (2/3) Easily Accommodated<br><br>(1/3) Difficult to Accommodate | Instructional labs for English, Math, Social Studies. |
| TOTALS | | 1,266 | 73(6%) | 34 (47%) Difficult to accommodate<br>39 (53%) Easy to Accommodate | |





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2. **The four** high schools on a **traditional** schedule processed a **small percentage of transfers from 4 X 4 block schedules;** overall the transfers were difficult to accommodate.

   - **DCHS** had the highest percentage of 4 X 4 transfers **(12%)** and the **majority ( 66%) were difficult to accommodate.**
   - **IRHS** had half as many 4 X 4 transfers as DCHS. Transfers were easy to accommodate only because IRHS offered **semester English classes** and because they scheduled many of the transfers into **electives**.
   - **OSHS** found **all 4 X 4 transfers difficult** to accommodate.
   - Students who entered the **Alternative School** from a 4 X 4 schedule found **reentry** to their home schools **difficult.**
   - Schools had **difficulty** accommodating students who transferred in the **middle of the year or later** with **academic yearlong classes.**

2. GBHS used the modified **alternating block schedule** and was able to accommodate **easily** the **small percentage** of **4 X 4 transfers.** Accommodations, however, usually involved scheduling students into **electives.** GBHS also reported that students were **unable to complete yearlong courses** when they transferred in the **middle of the year**.

3. The majority of **4 X 4 transfers to the 4 X 4 schedule at WBHS** were **easily accommodated** in part because WBHS offered an instructional lab for English, Math, and Social Studies.

4. As more area schools, including all Portsmouth schools, convert to the 4 X 4 schedule, Chesapeake will likely see an increase in the number of 4 X 4 transfers.

**RECOMMENDATIONS:**

1. Provide opportunities for guidance directors to share information on scheduling transfer students to and from the 4 X 4 block schedule.

2. Reassess the feasibility of offering a few required courses on a semester basis to accommodate students who transfer from other schools if Chesapeake high schools remain on different schedules.

3. Accommodations should be made for students from a 4 X 4 block schedule to integrate into the Chesapeake Alternative School schedule and then transition back to the 4 X 4 schedule (i.e., coordinate with the instructor of the instructional lab at WBHS whose expertise is in facilitating integration of transfers into the classroom to provide individual learning packets or other means of independent learning to students).

CHESAPEAKE
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SCHOOLS

# SUPPORTING DOCUMENTATION TO THE STUDY:

## SURVEY OF ADMINISTRATORS

## SURVEY OF ADMINISTRATORS

This section provides the results of the formal survey of all administrators and the related findings, conclusions, and recommendations.

## 4 X 4 BLOCK SCHEDULE EVALUATION
## SURVEY OF ADMINISTRATORS

**PURPOSE OF THE SURVEY:** Surveys were sent in April 1996 to all **five administrators** at WBHS to determine the impact of the 4 X 4 schedule on students, teachers, and the administration. Five responses were received for a **return rate of 100%.**

**PERFORMANCE CRITERIA FOR SUCCESS:**

1. Students in regular and special instructional programs were accommodated in the 4 X 4 block schedule.
2. Students in extracurricular activities were accommodated in the 4 X 4 block schedule.

**RESULTS OF THE SURVEY:** See Chart 9, page 95.

**FINDINGS:**

1. **One hundred percent** of administrators said the 4 X 4 schedule helped **students in extracurricular activities.**
2. **Twenty percent** said the 4 X 4 schedule helped students with **absences due to prolonged illnesses.**
3. **Eighty percent** said the 4 X 4 schedule helped or made no difference with regard to **transfer students.**
4. **One hundred percent** said the 4 X 4 schedule helped or made no difference with regard to students in **required courses**.
5. **One hundred percent** said the 4 X 4 schedule helped or made no difference with regard to students in **elective courses**.
6. **One hundred percent** said the 4 X 4 schedule helped or made no difference with regard to students in the **special education program**.
7. **One hundred percent** said the 4 X 4 schedule helped or made no difference to students in the **AP program**.
8. **One hundred percent** said the 4 X 4 schedule helped or made no difference to students in the **cooperative work program**.
9. **Twenty percent** said the 4 X 4 schedule made no difference to students in the **music program**.
10. **One hundred percent** favor increasing the number of **courses required for graduation**.
11. **One hundred percent prefer the 4 X 4 block schedule to the six-period schedule**.
12. **One hundred percent** said **teachers introduced a greater variety of learning activities** and that **students actively participated in learning activities more frequently in the new schedule.**
13. **Forty percent** said there is a need for **a longer school day**.
14. **Sixty percent** said **additional staff positions** were required.
    **Sixty percent** said **additional staff positions** will be required **in the future**.

**CHART 9**
**4 X 4 BLOCK SCHEDULE EVALUATION**
**ADMINISTRATIVE SURVEY RESULTS**

| SURVEY QUESTIONS | | SURVEY RESPONSES | | | | | |
|---|---|---|---|---|---|---|---|
| | | YES | NO | 4X4 HELPED | 4X4 HINDERED | 4X4 MADE NO DIFFERENCE | N/A |
| 1. | Based on your observations, did teachers introduce a greater variety of learning activities each class period in the 4x4 schedule than in the six-period schedule? | 100% | | | | | |
| 2. | Based on your observations, did students actively participate in learning activities more frequently in the 4x4 schedule than in the six-period schedule? | 100% | | | | | |
| 3. | Is a longer school day needed as a result of the change from the six-period schedule to the 4x4 schedule? | 40% | 60% | | | | |
| 4. | Were additional staff positions required as a result of the change from the six-period schedule to the 4x4 schedule? | 60% | 40% | | | | |
| 5. | Will additional staff positions be required in the future? | 60% | 40% | | | | |
| 6. | Were additional course offerings required as a result of the change from the six-period schedule to the 4x4 schedule? | 60% | 40% | | | | |
| 7. | Will additional course offerings be required in the future? | 100% | | | | | |
| 8. | Were additional staff training opportunities required as a result of the change from the six-period schedule to the 4x4 schedule? | 100% | | | | | |
| 9. | With regard to extracurricular activities, did the 4x4 schedule | | | 100% | | | |
| 10. | With regard to accommodating students with absences due to prolonged illnesses, did the 4x4 schedule | | | 20% | 80% | | |
| 11. | With regard to transfer students (from another state, another school division, another Chesapeake school, or courses within departments at WBHS), did the 4x4 schedule | | | 20% | 20% | 60% | |
| 12. | With regard to required courses, did the 4x4 schedule | | | 100% | | | |
| 13. | With regard to elective courses, did the 4x4 schedule | | | 60% | | 40% | |
| 14. | With regard to the special education program, did the 4x4 schedule | | | 80% | | 20% | |
| 15. | With regard to the advanced placement program, did the 4x4 schedule | | | 60% | | 40% | |
| 16. | With regard to the cooperative work program, did the 4x4 schedule | | | 20% | | 80% | |
| 17. | With regard to band, chorus, or orchestra, did the 4x4 schedule | | | | 80% | 20% | |
| 18. | Do you favor increasing the number of courses required for graduation? | 100% | | | | | |
| 19. | Do you prefer the 4x4 block schedule to the six-period schedule? | 100% | | | | | |

15. **Sixty percent** said **additional course offerings** were required.
**One hundred percent** said **additional course offerings** will be required **in the future**.
16. **One hundred percent** said **additional staff training** opportunities were required.

**CONCLUSIONS:**

1. All administrators are of the opinion that students in extracurricular activities were accommodated in the 4 X 4 schedule.
2. A high percentage of administrators are of the opinion that students with absences due to prolonged illnesses were **not** adequately accommodated in the 4 X 4 schedule.
3. A high percentage of administrators are of the opinion that transfer students were accommodated in the 4 X 4 schedule.
4. All administrators are of the opinion that students in required courses were accommodated in the 4 X 4 schedule.
5. All administrators are of the opinion that students in elective courses were accommodated in the 4 X 4 schedule.
6. All administrators are of the opinion that students in the special education program were accommodated in the 4 X 4 schedule.
7. Administrators are divided as to whether students in the AP program were accommodated in the 4 X 4 schedule.
8. All administrators are of the opinion that students in the cooperative work program were accommodated in the 4 X 4 schedule.
9. A high percentage of administrators are of the opinion that students in the music program were **not** adequately accommodated in the 4 X 4 schedule.
10. All administrators favor increasing the number of courses required for graduation.
11. All administrators prefer the 4 X 4 block schedule to the six-period schedule.
12. All administrators are of the opinion that teachers introduced a greater variety of learning activities and that students actively participated in learning activities more frequently in the new schedule.
13. Administrators are divided in their opinions regarding whether a longer school day is needed.
14. The majority of administrators are of the opinion that additional staff positions were required.
The majority of administrators are of the opinion that additional staff positions will be required in the future.
15. The majority of administrators are of the opinion that additional course offerings were required.
All administrators are of the opinion that additional course offerings will be required in the future.
16. All administrators are of the opinion that additional staff training opportunities were required.

**RECOMMENDATIONS:**

1. Explore ways to better accommodate students who are absent for prolonged periods of time because of illness. Counsel students on effective use of the extended day for short-term absences.

2. Offer alternative scheduling options for the music program (e.g., offer all students the opportunity to take six block courses and two yearlong courses, one of which could be music; see other alternatives, page 58).

3. Review the master schedule to determine what additional courses need to be offered to better accommodate students in the 4 X 4 schedule and the staffing requirements associated with the additions.

4. Offer additional staff development activities for teachers which encourage the use of cooperative learning, the three-part lesson (explanation, application, and synthesis), and other appropriate strategies for teaching in a ninety-minute block. Establish faculty seminar groups that use thirty minutes of the planning period twice a month in order to collaborate on implementation/teaching strategies.

CHESAPEAKE PUBLIC SCHOOLS

# SUPPORTING DOCUMENTATION TO THE STUDY:

## INFORMATION FROM CENTRAL OFFICE DIRECTORS

## INFORMATION FROM CENTRAL OFFICE DIRECTORS

This section provides the data collected regarding costs associated with implementation of the schedule and the related findings, conclusions, and recommendations.

## 4 X 4 BLOCK SCHEDULE EVALUATION
## INFORMATION FROM CENTRAL OFFICE DIRECTORS

### PURPOSE OF THE DATA COLLECTION:

Information was obtained from Central Office Directors to answer the following research questions:

1. What **additional staff positions** were required to implement the scheduling program? (Director of Personnel)
2. Did the **use of textbooks** and other **instructional materials increase**? (Director of the Educational Resource Center)
3. What **additional transportation services** were required? (Director of Transportation)
4. Did the **cost per class increase**? (Director of Accounting)

### PERFORMANCE CRITERIA FOR SUCCESS:

There were **no increases in costs** of **staffing, instructional materials**, or **transportation** services directly related to implementation of the 4 X 4 block schedule.

### FINDINGS:

1. The Director of Personnel indicated that in the 1995-96 school year **one full-time equivalent staff position** at a cost of **$40,820** (includes salary and fringe benefits) was added as a result of implementation of the 4 X 4 schedule. This position was used to staff the **instructional lab for transferring students**.

2. The Director of the Educational Resource Center indicated that there was a **savings of $101,372 in textbook costs** (see Appendix 4, page 110). The number of textbooks used in a course is reduced because students taking a course second term use the same books as students who took the course first term.

   The Accounting Department provided data regarding **draw accounts for instructional supplies** at WBHS for 1994-95 and 1995-96 for the following departments: Music, Art, English, Honors/AP English, Math, Psychology, Foreign Language, and Vocational Education. Amounts expended in **1994-95 totaled $11,845.** Amounts expended in **1995-96 totaled $15,447** for an **additional $3,602.**

3. Records from the Accounting Department indicated that the **cost per class** is **$1,822 less** in the 4 X 4 block schedule than in the six-period schedule (see Chart 10, page 100). This is due to the fact that a teacher teaches one more class (i.e., 6 of 8 classes in the 4 X 4 schedule and 5 of 6 classes in the six-period schedule). "Savings" result since more classes are available to students with the same staff.

## Chart 10
## Western Branch High School
## Cost Per Class

| | Actual Cost 1992-93 |
|---|---|
| Salaries | $3,906,978.00 |
| Fringe Benefits | 1,090,047.00 |
| Purchased Services | 13,582.00 |
| Supplies | 46,451.00 |
| Travel | 3,063.00 |
| Utilities | 242,766.00 |
| | $5,302,887.00 |
| **Cost Per Class for Six-Bell Day** | |
| Number of Classroom Teachers | 97 |
| Average Number of Classes Taught Per Year | 5 |
| Number of Classes | 485 |
| Cost Per Class | $ 10,934.00 |
| **Cost Per Class for 4x4** | |
| Number of Classroom Teachers | 97 |
| Average Number of Classes Taught Per Year | 6 |
| Number of Classes | 485 |
| Cost Per Class | $ 9,111.00 |
| **DIFFERENCE** | $1,822.00 |

Source: Accounting Department, Chesapeake Public Schools

4. The Director of Transportation indicated that **no additional transportation costs** were incurred as a result of the change to the 4 X 4 block schedule.

**CONCLUSIONS:**

1. In the **1995-96 school year** additional costs for staffing ($40,820) and instructional supplies ($3,602) were offset by savings in textbook costs ($101,372). Efficiency savings were realized because teachers taught six classes per year rather than five. A portion of the minor increase in cost of instructional supplies is attributable to growth. WBHS added approximately 100 students to its rolls in the 1995-96 school year.

2. In the **1996-97 school year** the following costs are anticipated:

**Staffing**:

- In the 1995-96 school year only freshmen and sophomores were required to take eight courses (4 X 4). Juniors were required to take at least a 3 X 3 schedule and seniors at least a 2 X 2 schedule. Freshmen, sophomores, and juniors will be required to take eight courses (4 X 4) in the 1996-97 school year, and seniors will be required to take 6 courses (3 X 3) which will result in a need for additional course offerings. The Assistant Superintendent for Personnel indicated that an **additional 2.4 staff positions ($97,968)** directly related to the 4 X 4 schedule are budgeted for the 1996-97 school year (see Chart 11, page 102).
- The Assistant Superintendent for Personnel indicated that 4 staff positions will be required at each high school to implement the 4 X 4 block schedule divisionwide.

**Instructional Materials**:

- The Director of Budget indicated that **one computer lab** at a cost of **$52,242** will be added to the business department in the 1996-97 school year to accommodate increased enrollments in elective courses. Some additional equipment and supplies will be required as students take more electives.
- Increases in amounts of **draw accounts for instructional supplies** are anticipated to be **minimal** based on the small increases in the 1995-96 school year. In addition, teachers will be more equipped to plan for allocating funds over the whole year based on their experience in the 1995-96 school year.
- Textbook savings will result when new textbooks are adopted if course offerings remain essentially the same. If additional courses are offered to meet the demand for more electives and sections of classes, additional costs will be incurred for textbooks.

**RECOMMENDATION:**

- Continue to monitor costs in the areas of staffing and instructional materials, including textbooks, as the 4 X 4 block schedule is fully implemented.

## CHART 11
## MINIMUM COURSE LOAD

| | 1995-96 | 1996-97 |
|---|---|---|
| **SENIORS** | 2 x 2 | 3 x 3 |
| **JUNIORS** | 3 x 3 | 4 x 4 |
| **SOPHOMORES** | 4 x 4 | 4 x 4 |
| **FRESHMEN** | 4 x 4 | 4 x 4 |

CHESAPEAKE PUBLIC SCHOOLS

# APPENDICES

**APPENDIX 1**
**4 X 4 BLOCK SCHEDULE EVALUATION**
**INTERVIEW FORMAT**
**WESTERN BRANCH HIGH SCHOOL DEPARTMENT HEADS, APRIL 29, 1996**

**DEPARTMENT:**_____

**INTRODUCTIONS**
**PURPOSE OF THE INTERVIEWS:**
Teachers have been surveyed and given the opportunity to comment on the new schedule.
We would appreciate hearing your perspective as the head of your department (and we certainly realize that you might offer comments based on opinions voiced to you by other teachers).

We would like for you to discuss what you see as the advantages and disadvantages of the new schedule. With regard to any disadvantages, we would appreciate your **sharing any ideas you have which would improve the schedule** if you feel that it should continue.

Program Evaluation Team members will refer to the following as needed in the interviews:
**ADVANTAGES:**
- fewer **preparations**
- **planning time**
- ability to introduce a greater variety of **learning activities** each period
- students more **actively participate** in learning activities
- more **individual attention** to students
- improved school **climate**
- **collaboration** with other staff members
- ability of students to **make up failed work**
- opportunities for **completers**

**DISADVANTAGES:**
- a **longer school day** needed
- **extracurricular** activities
- accommodating students with **absences** due to prolonged illnesses
- **transfer** students (from another state, another school division, another Chesapeake school, or courses within depts at WBHS
- **advanced placement** program
- **special education**
- **cooperative** work program
- **band, chorus, orchestra**
- adjustment (from **lectures** to other strategies)

**OTHER:**
- **staff development** activities
- ability to cover the **curriculum**
- students feeling **overwhelmed**
- classes **overloaded**
- need for more **course offerings**
- effects on **core** courses and **elective** courses
- effects on **freshmen, sophomores, juniors, seniors**
- effects on **lower/middle/higher** achieving students
- **retention** of learning/course **sequencing**
- **attendance**
- **discipline**--suspensions, etc.
- **unintended** effects--good and bad
- **failure** rate
- **dropouts**



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## APPENDIX 2
## ADVANCED PLACEMENT SCORES
### Percent of Yearly Grades Which Were "3" or Better

| COURSE | 1996 TERM TAKEN FALL | SPRING | 1995 YEARLONG COURSES | INCREASE | DECREASE |
|---|---|---|---|---|---|
| United States History | 61% | | 81% | | 20% |
| Art History | | 70% | | --- | --- |
| Studio Art | 100% | | 66% | 34% | |
| Biology | *46% | | 59% | | 13% |
| Chemistry | 80% | | 100% | | 20% |
| Computer Science A | 33% | | 50% | | 17% |
| Computer Science AB | 100% | | 100% | 0% | 0% |
| English Lit & Composition | 100% | | 90% | 10% | |
| European History | | | 100% | --- | --- |
| French | | 5% | 44% | | 39% |
| German | 100% | | 33% | 67% | |
| U.S. Government & Politics | | 92% | 100% | | 8% |
| Latin Vergil | | 75% | 72% | 3% | |
| Latin Literature | 100% | | --- | --- | --- |
| Calculus AB | 11% | | 32% | | 21% |
| Calculus BC | | 58% | 87% | | 29% |
| Physics | 100% | | 100% | 0% | 0% |
| Physics: Mechanics | 100% | | 100% | 0% | 0% |
| Physics: Elec | 100% | | 100% | 0% | 0% |
| Spanish | 50% | | 25% | 25% | |
| TOTAL | 61% | | 66% | | 5% |
| # OF CANDIDATES | 114 | | 90 | 24 | |

*Includes fall and spring scores

In 9 courses there were increases or no change in the percentage of grades which were "3" or better.
In 8 courses there were decreases in the percentage of grades which were "3" or better.

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**APPENDIX 3**
**4 X 4 BLOCK SCHEDULE EVALUATION**
**SUMMARY OF INTERVIEWS WITH STUDENTS**
**May 20, 1996**

**1. Have you noticed a difference in the way teachers teach since changing to the 4 X 4 block schedule?**

GROUP I: Teachers get students on task faster--less time starting--more group work--more cooperative learning--gives teachers more time to get the point across

GROUP II: More time to be thorough; more time to help student; better for student

GROUP III: No difference, just cover material at a faster pace; variety in English with group work and Paideia seminars but math classes have not changed; not enough group work--too much reading--same type of instruction; hasn't changed but didn't have to change in AP courses; in science we can do a lab; allowed to do homework in class which we like since we can get help from the teachers
Have more time - rushed in math - not as much time to learn - distracted by students who can't keep up and then don't stay focused
Lectures
Some teachers have not changed

GROUP IV: Teachers just waste more time--think that to hold attention they can teach only a certain amount of time--they now can go at a slower pace during the class

GROUP V: More of the same just at a faster pace; they can stress the material more and it sticks with you

GROUP VI: It's a long time to sit, but they are preparing us for college

GROUP VII: There is a lot of lecturing--very boring--depends on the classes, not a problem in honors classes where work has always been individualized

GROUP VIII: Teachers don't rush through but 90 minutes is too long and boring

GROUP IX: Don't really explain the lesson; faster pace; too rushed--not learning; end up reteaching yourself
Classes go faster--easier

GROUP X: More homework; same teaching methods but a longer time; get more work out of the way

**2. Have you received more individual attention from your teachers since changing to 4 X 4?**

GROUP I: Yes

GROUP II: Yes

GROUP III: Yes; school is easier

GROUP IV: Yes; move faster--my ninth grade brother is adjusting better than I

GROUP V: No
Yes
More time per class day
Couldn't get through AP
There is a tendency just to get through

GROUP VI: Yes, Yes, Yes, Yes

GROUP VII: Same, Same, little more attention

GROUP VIII: I like it--more attention from teacher
I have not received more attention

GROUP IX: *

GROUP X: no, no, no

**3. Do you think the longer 90-minute periods are an improvement over the 55-minute periods?**

GROUP I: Better

GROUP II: No; boring; like the idea of fewer classes per day

GROUP III: Workload has decreased
It's hard to transition in the middle of the year

GROUP IV: It's a long time to sit

GROUP V: Prefer 55, Prefer 55, Prefer 55, Prefer 55

GROUP VI: Prefer 55
Don't know
Prefer 90
Prefer 90

***For various reasons including time constraints, all groups did not respond to every question.**

GROUP VII: Prefer 90
Prefer 55
Prefer 55
GROUP VIII:
GROUP IX:
GROUP X: Prefer 4 X 4 just because I get more credits
Prefer the 7-period day

**4. Have you noted any change in your workload or change in pace overall?**

GROUP I: Much heavier
Easier - important to mix classes
Cover more chapters
GROUP II: About the same
GROUP III: Workload decreased
GROUP IV: Not much homework; grades up; transferred and gained credits; a lot of work to make up when you're out
GROUP V: Homework has increased
High homework
Important to mix courses but very difficult
GROUP VI:
GROUP VII: Less workload
Heavier workload--especially in foreign languages
Much more
GROUP VIII: Same
No homework--done in class
GROUP IX: Workload has increased but classes go faster
Do homework in class and can ask teacher questions
GROUP X: More tests during the week
Not that much homework

**5. Have you been able to take more electives?**

GROUP I:
GROUP II: No; yes; yes
GROUP III: In chorus we have had only 25 singers; we have had to rebuild our whole choir; I don't think the new plan of pairing with social studies and keyboarding will work. Kids in music are really smart, and students will take honors classes since they can't take both
Classes have been large - limited offerings - especially in core courses
GROUP IV:
GROUP V: Can take more AP classes
I couldn't get in AP with orchestra
More sections of AP are needed--all AP classes were offered the same bell
The new plan for music won't work
Ninety minutes is too long
GROUP VI:
GROUP VII: It has hampered my ability to take classes because scheduling what you need is hard
GROUP VIII: There is no reward in taking extra electives
I can get out earlier
GROUP IX: I like taking more courses
It depends on the offerings
There will be more courses offered next year
GROUP X:

**6. Has there been any difference in your grades or achievement in general?**

GROUP I: Grades have gone up.
Grades have gone up.
Grades have gone up.
GROUP II: Same; improved; improved
GROUP III: Up. Up. Up. Same; you miss so much if you have to be out.

GROUP IV: Grades have improved
Grades have stayed the same

GROUP V: Improved
Improved
Improved
Worse
I am concerned about the knowledge I've obtained in the faster pace

GROUP VI: Same
Improved
Same
Improved

GROUP VII: Lower at first but I have adjusted
Lower at first--adjusted and better this semester
Lower at first--adjusted and better this semester

GROUP VIII: A whole lot better after adjusted
Not much difference--harder--more work in one day

GROUP IX: Lot better
Lot better
Average

GROUP X: Improved
Improved
Improved because we only concentrate on four courses

**7. Do you have any comments regarding work study, AP, band/orchestra/chorus/laboratory courses?**

GROUP I: With work study it is hard to go check in, but we get to work early

GROUP II: No effect; more time to work in labs

GROUP III:

GROUP IV:

GROUP V:

GROUP VI:

GROUP VII: Chorus took up 2 slots of classes - it was hard to decide whether to do it - I was in Chorus all year - I prefer 6 bells
I took 2 AP courses first semester--it was hard to study for exams; AP second semester classes were too short
We did have more time in science labs each day, but we did not get to do a lot of labs that were necessary for doing well on the AP exams

GROUP VIII:

GROUP IX: With work study on this schedule, I get out earlier and go to work
The schedule helps with getting credits

GROUP X:

**8. Has the new schedule affected your extracurricular and cocurricular involvement?**

GROUP I: Extracurricular are more rushed and we miss time in school to participate

GROUP II: More time for individual attention if a class is missed

GROUP III: Tough on extracurricular activities - sports

GROUP IV:

GROUP V:

GROUP VI:

GROUP VII:

GROUP VIII: No effect on extracurricular or cocurricular involvement

GROUP IX: Fewer people have been cut from the team since they have a chance to remediate and better their grades

GROUP X: About the same

**9. Have you (or do you know any students who have) transferred? How did the 4 X 4 schedule affect the transfer?**

GROUP I:

GROUP II: I transferred and gained credits; more time from teachers for transfer students

GROUP III:

GROUP IV:
GROUP V:
GROUP VI:
GROUP VII:
GROUP VIII:
GROUP IX:
GROUP X:

**10. What do your parents think of the new schedule?**

GROUP I: Like - I had to retake English and still will graduate with my class
Like - I'll be in international studies and get more English credits
Like - Variety of classes - not so monotonous
GROUP II: Like; not much concern or involvement
GROUP III:
GROUP IV:
GROUP V: Like because I can take so many college classes and it saves money
Not sure
Skeptical
My parents agonized over my schedule
GROUP VI: OK
Like
Happy - I can earn more credits
Like
GROUP VII: Don't like - too much homework
Not sure
Not sure
GROUP VIII: Don't like
Like
GROUP IX:
GROUP X:

**11. Has the new schedule affected the overall climate of the school (discipline, activity in the halls, attendance/absences)?**

GROUP I: Teachers are less likely to put up with students cutting classes
Some students do not like to sit for the long periods
GROUP II: Fewer fights because you will be suspended for 10 days and if you miss 10 days you fail
Better to have less time in the halls
Attendance is better
If you are late for any 3 classes, you receive an absence
GROUP III:
GROUP IV: We have lots of rules, but they are not being enforced
I find I am not seeing people
GROUP V:
GROUP VI: You have to wait in long lines after you are absent
Failing after 10 absences is a problem
Discipline has improved mostly because of cameras and security guards
GROUP VII: There have been fewer fights.
GROUP VIII: Too much security
It's about the same
GROUP IX: Failing after 10 absences is a problem
The extended day on Wednesdays from 3:30 - 5:30 for making up absences has helped
GROUP X: About the same

**12. Should school begin earlier?**

GROUP I: Yes
Yes
No, but I get out early
GROUP II: We should still have early classes
GROUP III:

GROUP IV:
GROUP V:
GROUP VI:
GROUP VII:
GROUP VIII:
GROUP IX:
GROUP X:

**13. Would you like to continue the 4 X 4 schedule, return to the alternating schedule, or return to the six-period schedule?**

GROUP I: 4 X 4
4 X 4
4 X 4

GROUP II: 6 Period
4 X 4
4 X 4

GROUP III: 6 Period
6 Period
4 X 4
4 X 4

GROUP IV: 4 X 4
4 X 4
Alternating
Alternating

GROUP V: They should think about phasing out the 4 X 4

GROUP VI: 4 X 4
4 X 4
Don't know
4 X 4

GROUP VII: 6 period
6 period
6 period

GROUP VIII: 4 X 4; 6 period

GROUP IX: 6 period; 4 X 4; 4 X 4

GROUP X: 4 X 4
4 X 4
4 X 4

**14. Do you have any other comments or suggestions for improvement regarding the new schedule?**

GROUP I: None

GROUP II: None

GROUP III: AP classes should go all year long as at Churchland
I like the 7-period day

GROUP IV: I was in the Governor's School and that would be impossible to do now.
I wonder how much you retain when you take so much
Teachers can pace the classes better in 4 X 4
I wonder about kids finishing foreign languages at beginning of sophomore year

GROUP V:

GROUP VI: Lunch periods are too short
They should do away with student security guards--they don't do anything

GROUP VII:

GROUP VIII: My freshmen friends do not like the schedule. It is hard to switch to a new group of friends midyear.

GROUP IX:

GROUP X: I would like to be able to take an early morning class

## APPENDIX 4

EXCESS TEXTBOOKS DUE TO BLOCK SCHEDULING AT

WESTERN BRANCH HIGH

| TITLE # | DESCRIPTION | TRANS. FROM WBH TO ERC | | TRANS. FROM ERC TO WBH | RESULT | | PRICE | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|
| 22-035 | HM ENGLISH 9 | 100 | | | 100 | X | 23.55 | = | $2,355.00 |
| 22-051 | ELEMENTS OF LIT.3RD. | 100 | | | 100 | X | 38.20 | = | 3,820.00 |
| 23-269 | HM ENGLISH 10 | 175 | | | 175 | X | 24.14 | = | 4,224.50 |
| 23-281 | HM ENGLISH 11 | 150 | | | 150 | X | 24.13 | = | 3,619.50 |
| 23-295 | HM ENGLISH 12 | 90 | | | 90 | X | 24.13 | = | 2,171.70 |
| 23-305 | STAGE & SCHOOL | 25 | | | 25 | X | 26.05 | = | 651.25 |
| 23-307 | SPEECH FOR EFFECT. | 31 | | | 31 | X | 24.49 | = | 759.19 |
| 23-308 | SPEECH FOR EFFECT.TE | 1 | | | 1 | X | 8.10 | = | 8.10 |
| 23-313 | ELEMENTS OF LIT. 4TH | 140 | | | 140 | X | 38.20 | = | 5,348.00 |
| 23-325 | ELEMENTS OF LIT. 5TH | 125 | | | 125 | X | 41.31 | = | 5,163.75 |
| 23-341 | ELEMENTS OF LIT. 6TH | 100 | | | 100 | X | 41.31 | = | 4,131.00 |
| 25-007 | WRITING THEMES LIT. | 25 | | | 25 | X | 19.93 | = | 498.25 |
| 25-011 | BEACON HANDBOOK | 25 | | | 25 | X | 18.44 | = | 461.00 |
| 25-013 | WORLD LITERATURE | 45 | | | 45 | X | 41.31 | = | 1,858.95 |
| 32-091 | DIS MOI (FRENCH) | 50 | | | 50 | X | 32.35 | = | 1,617.50 |
| 32-109 | VOCES Y VISTAS | 90 | | 25 | 65 | X | 31.26 | = | 2,031.90 |
| 32-113 | FACE TO FACE BK 1 | 28 | | | 28 | X | 26.95 | = | 754.60 |
| 32-114 | FACE TO FACE BK 1TE | 1 | | | 1 | X | NO RECORD/ERC NO PAPERWO | | |
| 32-115 | VEINS VOIR(FRENCH) | 90 | | 10 | 80 | X | 28.36 | = | 2,268.80 |
| 32-123 | PASO Y PUENTS | 180 | | | 180 | X | 33.42 | = | 6,015.60 |
| 40-029 | MATH:APPLIC. & CONN. | 34 | | | 34 | X | 30.22 | = | 1,027.48 |
| 41-025 | BASIC ALGEBRA | 100 | | | 100 | X | 29.00 | = | 2,900.00 |
| 41-026 | BASIC ALGEBRA TE | 1 | | | 1 | X | NO RECORD/ERC NO PAPERWC | | |
| 41-031 | MATH MATTERS | 30 | | 35 | (-5) | X | 38.82 | = | (-194.10) |
| 41-033 | PRE-CALCULUS | 50 | | | 50 | X | 44.79 | = | 2,239.50 |
| 42-029 | USING COMPUTERS MATH | 10 | | | 10 | X | 33.00 | = | 330.00 |
| 42-049 | MERRILL ALGEBRA | 25 | | 40 | (-15) | X | 34.54 | = | (-518.10) |
| | | | | | | | | | $54,255.57 |

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EXCESS TEXTBOOKS DUE TO BLOCK SCHEDULING AT

WESTERN BRANCH HIGH

| TITLE # | DESCRIPTION | TRANS. FROM WBH TO ERC | | TRANS. FROM ERC TO WBH | RESULT | | PRICE | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|
| 43-051 | GEOMETRY: APPLICAT. | 75 | | 33 | 42 | X | 32.37 | = | $1,359.54 |
| 43-053 | FOR ALL PRACT. PURP. | 66 | | 66 | 00 | X | 00.00 | = | 0,000.00 |
| 43-056 | FOR ALL PRACT. TE | 2 | | | | X | 00.00 | = | NO RECORD/ERC PAPERWORK |
| 43-058 | FOR ALL PRACT.TELE. | 2 | | | | | | | NO RECORD/ERC PAPERWORK |
| 53-003 | CHOOSING WELLNESS | 175 | | | 175 | X | 35.07 | = | 6,137.25 |
| 62-029 | HEATH: EARTH SCIENCE | 70 | | | 70 | X | 45.52 | = | 3,186.40 |
| 62-031 | HBJ: EARTH SCIENCE | 100 | | | 100 | X | 36.00 | = | 3,600.00 |
| 63-025 | MERRILL BIO:EVERYDAY | 25 | | | 25 | X | 28.00 | = | 700.00 |
| 63-027 | HBJ: BIOLOGY | 70 | | | 70 | X | 31.00 | = | 2,170.00 |
| 63-029 | CHEM:CONTEMP.APPROC. | 70 | | 32 | 38 | X | 43.74 | = | 1,399.68 |
| 64-033 | AW: CHEMISTRY | 150 | | 10 | 140 | X | 45.68 | = | 6,395.20 |
| 64-035 | AW: CHEMISTRY LAB M. | 125 | | | 125 | X | 11.17 | = | 1,396.25 |
| 65-005 | BIO: INQUIRY IN LIFE | 100 | | 20 | 80 | X | 54.00 | = | 4,320.00 |
| 70-033 | STORY OF AMERICA | 6 | | | 6 | X | 44.38 | = | 266.28 |
| 72-133 | WORLD GEOGRAPHY | 100 | | | 100 | X | 31.50 | = | 3,150.00 |
| 72-141 | WORLD HISTORY | 40 | | | 40 | X | 33.66 | = | 1,346.40 |
| 74-083 | U.S. HISTORY | 175 | | 25 | 150 | X | 36.81 | = | 5,521.50 |
| 74-087 | INVITATION TO ECONO. | 8 | | | 8 | X | 28.72 | = | 229.76 |
| 74-088 | INVITATION TO ECO.TE | 1 | | | | X | 00.00 | = | NO RECORD/ERC PAPERWORK |
| 75-035 | AMERICAN GOVERNMENT | 60 | | | 60 | X | 36.23 | = | 2,173.80 |
| 83-127 | CEN.21KEY/BD/FORMAT | 197 | | 120 | 77 | X | 26.19 | = | 2,015.09 |
| 84-083 | BUSINESS PRICIP. MAG | 19 | | | 19 | X | 22.41 | = | 425.79 |
| 84-097 | PRINCIPLES OF TECH. | 0 | | | | X | 00.00 | = | NO RECORD/ER PAPERWORK |
| 84-099 | SUPERWRITE NOTETAKING | 28 | | | 28 | X | 17.55 | = | 491.40 |
| 84-137 | UNDERSTANDING B/LAW | 15 | | | 15 | X | 30.70 | = | 460.50 |
| 84-149 | AN INTRO TO D/BASE | 17 | | | 17 | X | 21.87 | = | 371.79 |
| | | | | (TOTAL) | $101,372 | 20) | | | $47,116.63 |

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